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Rorschach Configurations Associated With Reading Disability [1]

PAULINE G. VORHAUS, ED.D.

INTRODUCTION

In a paper written in 1944 the writer expressed the view that marked reading retardation, when it occurs in individuals whose mental capacity is average or above, carries with it a suggestion that emotional factors play some part in its persistence. The point was made that in addition to diagnostic procedures instituted to explore the extent and type of reading disability and to determine appropriate remedial measures, it is also important to study these emotional implications and, when indicated, to extend the scope of remedial efforts to include this area.

In the seven years following the publication of that paper, the writer continued testing children who suffered from marked reading disability. She was confronted daily with the need to investigate the meaning of the reading retardation in each individual case and to consider whether, and to what extent, emotional factors may have been operative in producing and continuing the condition. This extended investigation has strengthened the earlier belief that emotional factors play an important role in cases in which mentally normal individuals suffer from extreme and long continued reading retardation. It has seemed increasingly evident, therefore, that the attempt to handle such retardation as an entity in itself is essentially to employ a symptomatic approach to what actually is a deeper, more far reaching problem.

The present paper describes Rorschach findings in 309 reading disability cases, representing those individuals tested by the writer during the period from September, 1946, through November, 1948, at the New York University Reading Institute[2]. As an outgrowth of this more extensive study of the Rorschachs of reading failures, new aspects of the problem were brought into focus which had been somewhat obscured through the major emphasis given to the earlier study. Attention at that time was centered on the Rorschach evidence of an association between emotional disturbance and disturbed inter-personal relations (common to all the cases investigated.) In the present study, while this aspect retains an important position, emphasis is placed on intra-personal dynamics and on the evidence, offered by the Rorschach, that different individuals, reacting to the same environmentally-conditioned disturbance, have worked out various kinds of adaptations. Each of these adaptations has resulted in certain specific personality trends, affecting attitudes both to the self and to the creative and productive impulses. Four Ror-

[1] Adapted from a dissertation submitted in partial fulfillment of the requirements for the degree of Doctor of Education, (Teachers' College, Columbia versity, December, 1950.)

[2] Special acknowledgement is due to Dr. Stella S. Center, who was director of the Reading Institute throughout the period encompassed by this work. It was her constant interest, cooperation and understanding which made this study possible.

schach configurations, suggestive of four such personality adaptations, have been identified and will be described in this paper.

Procedure

In order to separate each of the four configurations sharply from the others, numerical limits are defined for each Rorschach determinant used. The limits consist of two aspects: (1) The minimum number of characterizing determinants necessary to fulfill the specifications for the configuration in question. (2) The number of other determinants which may also be present without over-stepping the limits of this configuration. Sixty-two of the 309 records fitted into the numerical limits set for Configuration I; 53 into Configuration II; 63 into Configuration III; and 47 into Configuration IV. Thirty-one records (while similar in large measure to one or the other configuration) deviated in some minor respect. They were therefore not included in these groupings. Fifty-two records did not fit into any of the four configurations. All these were records showing Rorschach indicators of marked mental or emotional disturbance.

In presenting each of the four configurations, an accompanying graph is included. This is the hypothetical "average" graph, arrived at through working out a Rorschach psychogram in each case. Each determinant scored is therefor the mean determinant for the entire group included in the configuration. All quantitative relationships reported are those between the means of the various factors investigated. A Rorschach interpretation of this graph, and the quantitative relationship between the various Rorschach factors, will follow. This interpretation does not necessarily refer to any specific record in the group, but is the personality picture of the group "average."[3]

A few words appear in order concerning the conditions under which these Rorschach records were scored and interpreted. It had been the writer's custom to score and evaluate the Rorschach records of these non-readers before she had any knowledge of the case history. The interpretative interviews which she later had with the parents were also conducted without any previous knowledge of the life situation of the child. It was only in the course of the interview that the two sources of knowledge were brought together, the parents providing both the behavioral and the life history equivalents of the psychological dynamics independently arrived at through the testing program. While the writer is certainly not suggesting that a "blind analysis" should ever be made the basis for treatment planning, this approach (which was "blind" in its initial phases) seemed valuable for two reasons : (1) It prevented any unconscious "bias" which might otherwise have crept in as the result of some piece of case history information. (2) It acted to keep the psychologist constantly alert to clues and suggestions. At the same time, realization of the eventual

[3] In arriving at these configurations, *additional* determinants are given the value of ½. These quantitative results refer only to responses given in the Performance Proper and the Inquiry. While the writer feels that skillful analogy questions often add important qualitative information, and that their use should therefore be encouraged, there is not, as yet, enough evidence of the extent to which this extra degree of prodding should be weighted, to make it appear desirable to include them here.

need to harmonize case history and Rorschach interpretation acted as a check against any tendency to jump to unwarranted conclusions. Accordingly, the Rorschach protocols were all scored without any knowledge of whether the child actually belonged to one or the other of the four configurations (from the point of view of his psychological adaptation). It seems worth adding that at no time, at the conclusion of the interview, was there reason to feel that an important discrepancy existed between the case history account and the interpretative significance of the Rorschach configuration in which the record had been placed.

The following characteristics appeared so recurrently in the case histories of the children who fall into these four configurations that, in large measure, they seem applicable to all the adaptations made:

1. They are, almost without exception, submissive children, "good" and "obedient" in their relation to parents and teachers.
2. They come from socio-economically privileged homes in which cultural interests and pleasantness of manner are highly valued.
3. They appear eager to learn, and seemingly feel as badly as do their parents about their academic failure.
4. None of them is psychotic and none of the group suffers from limitations of a neurological nature.
5. They are all, in varying degrees, lacking in spontaneity, enthusiasm, and general responsiveness.

It should be emphasized, in view of the above, that the writer can say nothing from personal knowledge about the following children, however marked their reading difficulty: 1) Aggressive, "acting-out" behavior problems; 2) Lower middle class and economically underprivileged children; 3) Children whose parents are not concerned about their reading disability; 4) Those who have marked mental or emotional disabilities; 5) Those who relate themselves to the environment (whether positively or negatively) without evidence of guilt or inferiority feelings. The writer hopes that interest will be stimulated in studying the Rorschach records of these other groups to see whether configurations are also discernible, and if so, to what extent they parallel or vary from those reported here.

Before proceeding with the description of the four Rorschach configurations, a few words should be said about certain interpretative hypotheses used here. In the main they follow the principles outlined by Klopfer (1942). However, one extension of the usual procedures is made. The writer agrees with Colm (1948) that:

> The fact that children are more dependent than adults on the few really significant persons in their life for their thoughts, emotional responses and reactions, presents a new possibility for the diagnostic use of the Rorschach. The child's responses, like his response to life, are so deeply colored by the parents' attitudes toward him and toward life that the parents' own problems and characteristics are, to a great degree, reflected by the child's responses. Because of this, one can safely reconstruct the interrelationship difficulties between parents and the child from the child's Rorschach.

In line with this, absence of strong *CF* is taken to indicate lack of readiness or ability to express strong feelings toward or about the environment. A "withdrawal" picture, associated with this lack of strong color reaction suggests that

the child in question has turned these feelings in on himself. If two or more FC'S appear, with no accompanying CF, the premise is advanced that this basically unrelated child has "accepted training," but only in a superficial sense. It seems plausible, then, to surmise that he comes from a home where surface pleasantness pertains (since he is both withdrawn, and therefore seemingly has not found satisfaction in his affective life, yet, at the same time, appears polite and socially conforming).

The following inferences also seem warranted:

1. Children react in a variety of ways to pressure situations (i.e., those in which pressure is exerted, or is felt by the child to be exerted, in order to re-mold him so that he will fit the parents' preconceived pattern). The reactions vary in spite of the fact which is common to all of them that they experience this pressure as emotionally depriving.

2. These reaction patterns are seemingly determined by a combination of: a) level of emotional development at the onset of this experience; b) extent of earlier relatedness prior to onset of this experience; and c) extent of the submissiveness of the specific child.

3. All these reactions have in common the effort to avoid the anxiety and insecurity that are aroused by the sense of deprivation.

4. These children are inclined to develop reading difficulties which appear, at least in part, to have psychological implications. These implications may be thought of as taking on a different meaning depending on the type of configuration.

A warning seems appropriate at this point: the very fact of classifying children into configurations implies that the children in each configuration may be described in terms of common characteristics. This concept is useful, if one employs its cautiously. But neither configurations nor any other mode of classification should ever become "magic cloaks" which conceal the identity of the individual. As used here, they are certainly not intended as a means of blotting out individual differences in favor of a group likeness. On the contrary, they should be thought of as aides in seeing the individual more clearly. Giving a child a family name does not make him dissolve into an indistinguishable part of a family unit; instead it often serves to spotlight differences, through this very act of seeing him in relation to the group trend. These "names" then, give us certain general background information about our non-readers. But they do not tell us the essential thing about them: how each one can be reached and understood and helped. It seems well to end this section with the warning implicit in Peattie's observation: "There is nothing so *unlike* as two peas in a pod."

Rorschach Configurations

Configuration I

Quantitative Requirements:

1. F is used in more than 50 percent of responses.
2. No single determinant other than F has a numerical value of more than 2½.
3. Sum of color is less than 3.

Configuration I has two conspicuous components: the first is a marked overdevelopment of one Rorschach determinant (F); the second is underdevelopment of all other determinants to an extent

TABLE I Distribution of Ages for Children with Configuration I

Age Group	Girls	Boys	Total
6 - 6-11	0	2	2
7 - 7-11	0	0	0
8 - 8-11	1	6	7
9 - 9-11	1	3	4
10 - 10-11	0	3	3
11 - 11-11	1	2	3
12 - 12-11	2	2	4
13 - 13-11	2	3	5
14 - 14-11	0	7	7
15 - 15-11	0	10	10
16 - 16-11	2	3	5
17 - 17-11	1	3	4
18 - 18-11	1	0	1
19 - 19-11	1	1	2
20 - 20-11	0	3	3
Over 21	0	2	2
TOTAL	12	50	62

where the F column stands almost alone.

Since F is traditionally interpreted as standing for constriction and inhibition, the individual having a high F is understood to be one in whom the need to repress plays an important role in his adaptation to life. In this configuration inhibitory needs play a dominant role, having expanded to the extent where they have all but stifled the growth potentials.

At first glance, it seems possible that this adaptation arose as a by-product of mental limitations. This possibility is negated by the fact that the F responses given by the group represented here are not minus (or grossly inaccurate), and therefore do not suggest the lack of intellectual capacity which would accompany such mentally-conditioned limitations.

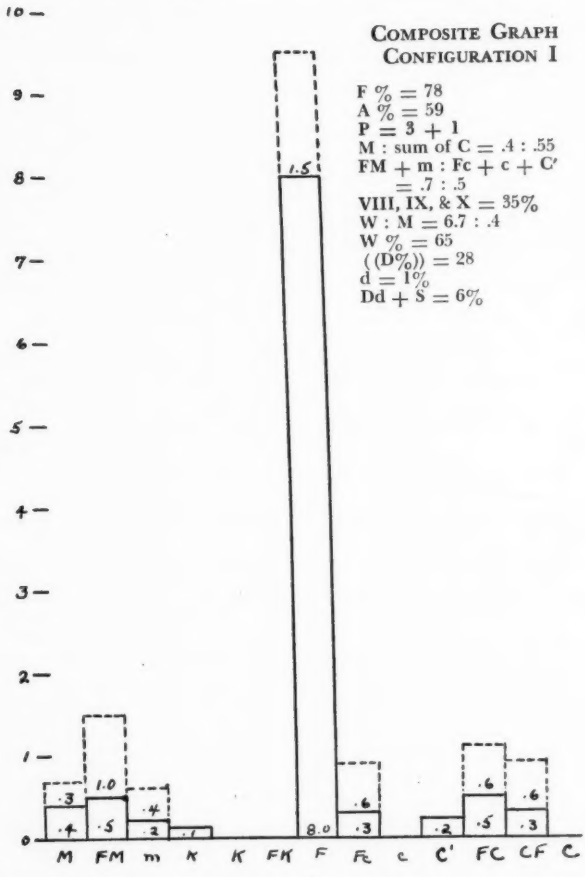
The alternative hypothesis is that the limitation is imposed, and not inherent. This suggests that certain personality factors were arrested in their development, seemingly because they interfered with the kind of adaptation the individual was attempting to make to his particular situation. If a sufficient number of these personality factors were arrested in this way, personality impoverishment would gradually result.

The interpretative task therefore is to try to understand why the subject made this adaptation, and what kind of an environment it was in which this need for repression became so dominant (Colm, 1948).

It seems reasonable to hypothesize that the home in which this subject has grown up is one which has failed to provide the personal warmth which he needed in order to establish a firm sense of security. If this warmth were there, it would evoke feelings of relationship and capacity for affective reaction, both of which are absent in this configuration. This absence implies rejection, but "rejection" of a very specific kind. If the rejection were overt, one would expect to find Rorschach evidence of resentment and hostility on the part of the rejected child. All such expressions are absent here.

The assumption then is that there is no manifest rejection, but that a *covert rejection* (of which the parent himself may well be unaware) is concealed behind a facade of affection and fostering care. The appearance of a "good home" in our cultural sense is therefore depicted, but on a deeper level, it is still a rejecting home despite this appearance of acceptance.

Several Rorschach factors must be jointly considered in arriving at this picture of "covert rejection". First the high F column itself. In its overdevelopment it suggests that such values as "holding one's self in check" and conforming to the stereotype of "correct behavior" must be important in this child's home. Secondly, there



is the absence of those determinants which indicate "inner development," particularly the lack of FM. Since FM is a determinant which is taken to relate to such personality aspects as spontaneity, vivacity, and naturalness, its presence may be interpreted to mean that an individual who freely uses it has the ability to accept his instinctual drives and to function easily and naturally in terms of this acceptance. Such a complete lack of FM as is pictured here must therefore mean an awareness, which came about in early life, that spontaneity and naturalness are disapproved. In other words, it seems as though in the childhood efforts to gain the security he craved, this individual must have associated reserve of manner, conformity, and the giving of stereotyped reactions with increase in such security. In striving for this, he must then have sacrificed

his wish to gratify his other drives and impulses, as the price to be paid in order to win approval and security (See Sylvester and Kunst, 1943).

The prognosis in this configuration largely depends on the extent to which this sacrifice has been accomplished. When considered with reference to the evidence in the graph of Configuration I, the likelihood is against any marked growth or expansion. Interest in a realistic, common-sense point of view is definitely under-developed (D only 28%). The ability to react to the values and motivations of his contemporaries is somewhat below average ($P = 3 + 1$). There appears to be no reason to feel that spontaneous enlargement of these interests will take place (responses to cards VIII through X only equal 35 percent). Most important of all, the trend is merely to continue this impoverished adaptation ($FM + m: Fc + c + C' = 0.4 : 0.5$).

It should be emphasized, however (with respect both to this and to the other configurations), that prognosis depends upon an interplay of qualitative and quantitative Rorschach evidence. Since this configurational approach is confined to quantitative aspects, it can, at best, only offer hints and suggestions. Interpretation in a comprehensive sense is beyond the scope of quantitative analysis.

A word might be said regarding the reading problem of this hypothetical child. The graph of Configuration I makes it clear that the individual pictured here has no real zeal to succeed. His efforts are mechanical and lacking in spark; his real interest is in the approval which comes as the reward of learning, and not in learning for its own sake. The degree of impoverishment depicted is too great to allow of any genuine interest in either learning or achievement.

Configuration II

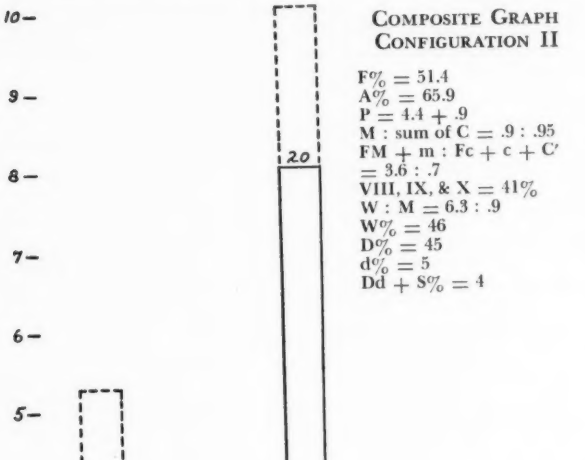
Quantitative Requirements:

1. FM has a numerical value of 3 or more.
2. M is absent, or when used, has a numerical value of less than half of FM.
3. Color is absent, or when used, the sum of color responses has a numerical value of less than 3.
4. m is absent, or when used, has a numerical value of less than half of FM.

TABLE II Distribution of Ages for Children with Configuration II

Ages Group	Girls	Boys	Total
6 - 6-11	0	0	0
7 - 7-11	0	1	1
8 - 8-11	0	3	3
9 - 9-11	1	5	6
10 - 10-11	1	6	7
11 - 11-11	1	2	3
12 - 12-11	0	5	5
13 - 13-11	0	4	4
14 - 14-11	2	6	8
15 - 15-11	1	2	3
16 - 16-11	1	4	5
17 - 17-11	0	3	3
18 - 18-11	0	1	1
19 - 19-11	0	1	1
20 - 20-11	0	1	1
Over 21	1	1	2
TOTAL	8	45	53

In Configuration II the prominent characteristic is the high FM column, particularly when considered in conjunction with absence of both M and color responses. Since FM is interpreted as relating to those aspects of the subject's inner life which are largely on an instinctual level, it becomes associated with his pleasure drives and with the spontaneity and exuberance which comes from the free enjoyment of those drives. In


COMPOSITE GRAPH
CONFIGURATION II
F% = 51.4
A% = 65.9
P = 4.4 + .9
M : sum of C = .9 : .95
FM + m : Fc + c + C' = 3.6 : .7
VIII, IX, & X = 41%
W : M = 6.3 : .9
W% = 46
D% = 45
d% = 5
Dd + S% = 4
10
9
8
7
6
5
4
3
2
1
0
M FM m k K FK F Fc c C' FC CF C
.9 .6 3.4 1.9 .9 .2 8.1 20 .5 1.3 .2 .4 1.1 1.8 .4 .7

this configuration, however, this natural spontaneity and exuberance are not pictured. This is because of the absence of CF. Inasmuch as CF indicates the capacity for strong emotional responsiveness to the environmental or external situation, Configuration II shows inhibition of such responsiveness and a consequent lack of relatedness. One may infer, therefore, that the pleasure drives are not acted out, but instead have been turned inward and locked within the individual, becoming sources of compensatory gratification, not associated with the outside world. Further, the under-development of M makes it clear that they have remained on a primitive level, and have not become sources either of stability or of emotional growth.

The interpretative task is to understand why this compensatory adaptation came about, and what relationship exists between this adaptation and the subject's environmental situation.

Viewed in terms of the above, Configuration II suggests a family and background situation in some respects similar to the one described in Configuration I. There is the "good home," the submissive child, and an awareness of pressure; but the indication is that in this case this awareness did not affect this child's reactions until a later stage of his development had been reached. It seemingly began to affect him at a time when he had already enjoyed some gratification of his instinctual drives and when, consequently, he experienced the pressure as frustrating and depriving. He has not developed the consuming interest in conforming that took place with the child in Configuration I. Instead, his interest is in counteracting the sense of frustration through substituting a new security for the one that has failed him. As the environmental pressures impinge more strongly on him, the drives inherent in the high FM are gradually prevented from outward expression. There is no suggestion that resentment has been generated in this process, but neither is there a suggestion that positive feelings have developed. Instead, the picture is one of withdrawal of affect, with nothing but this "shut-in" FM to depict any activity. The inference is that the withdrawn emotion is turned inward; the child seeks within himself the comfort which the outside world denies him. *The love which he has withdrawn from his frustrating environment has become focused on himself, as the provider of compensatory satisfactions.*

Considering the prognosis in this configuration, it is clear that there is more to work on than in the group first described. Inner resources exist and, as such, are a potential source of richness and creativity. (High FM plus a small amount of M). The individual is capable of exercising judgment and using common-sense yardsticks (D 45%). He is responsive to the same values which motivate his contemporaries (P = 4.4 + 0.9).

The clue to the reading failure seems to lie in the self-preoccupation and ego-centricity inherent in this adaptation. Since this is a submissive child, it is quite probable that he has accepted environmental values on an intellectual basis to a point where he really *believes* that he wants to read. But emotionally he is detached from these values, being figuratively still at the thumb-sucking stage. Learning and achievement, being outside the realm of his preoccupation, are therefore essentially unimportant.

Configuration III

Quantitative Requirements:

1. M has a numerical value of 3 or more.
2. FM is absent, or when used, its numerical value cannot exceed one and one-half times the amount of M.
3. m is either absent, or when used, it does not exceed one-half the amount of M.
4. Color is absent, or when used, the sum of color responses has a numerical value of less than 3.

In Configuration III, M is the prominent determinant. Since M, when it reaches a strength of 3 or more, is traditionally considered as indicative of emotional adjustment, its dominant position here might suggest that the instinctual drives have been integrated into the individual's total functioning, thus becoming the source of creative energy and achievement. How-

TABLE III Distribution of Ages for Children with Configuration III

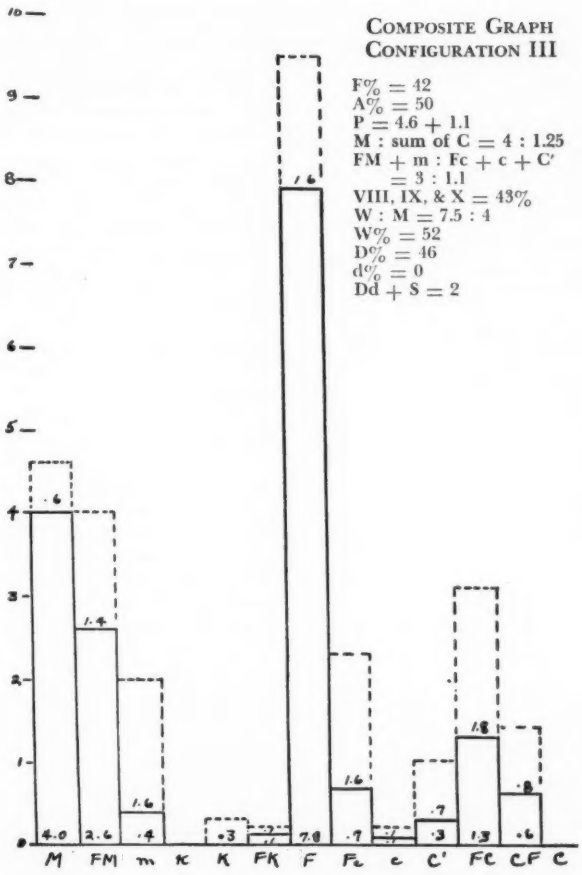
Age Group	Girls	Boys	Total
6 - 6-11	0	0	0
7 - 7-11	1	1	2
8 - 8-11	0	3	3
9 - 9-11	1	3	4
10 - 10-11	1	7	8
11 - 11-11	5	7	12
12 - 12-11	1	8	9
13 - 13-11	2	2	4
14 - 14-11	1	5	6
15 - 15-11	0	2	2
16 - 16-11	1	6	7
17 - 17-11	0	4	4
18 - 18-11	0	1	1
19 - 19-11	1	0	1
20 - 20-11	0	0	0
Over 21	0	0	0
TOTAL	14	49	63

ever, instead of finding the amount of FC and CF which, in an adjusted picture would, of necessity, accompany personality integration, a paucity of both these determinants is noted. These lacks suggest that there is failure, both in the capacity to establish rapport and in the ability to react to the environment deeply and genuinely. In addition FM is understressed, indicating that there is dearth of vivacity and spontaneity, in spite of the strength of the creative impulses. These various absences argue that the creative potential (M) is shut off from the outside world. It appears to be merely a private source of richness, neither shared with others nor displayed to them. In this setting, then, M seems to signify the "value system" of the individual, which he must protect from outside intrusion. The suggestion is that the withdrawal of affect that has taken place is a response to a sense of the environment as threatening this value system. The "subject's" dilemma is created by the fact that though he reacts submissively, he feels a strong inner rebelliousness. He will not give up his individual integrity, but he cannot fight openly for it. The appearance of efforts at conformity, in conjunction with the secret, shut-in nature of the M, is his way of submitting, and at the same time rebelling, and guarding what is his own.

The optimum W to M ratio raises an interesting question. It is usually taken to suggest an optimum relationship between effort and achievement. In this case, since the actual effort is merely to appear to participate sufficiently that one may be left alone and thus avoid the necessity of actually participating, the meaning of this optimum ratio might be more accurately described as a successful "drive for non-achievement."

How did this adaptation come about? Again one reconstructs from the Rorschach, a family and background situation similar to those found in the first and second configurations. There is the "good" home, the submissive child, and an awareness of pressure. As in Configuration II, the sense of deprivation appears to play the dominant psychodynamic role. The early satisfactions (whose relinquishment is seen as a pre-requisite to conformity) are experienced as too precious to surrender. Instead, *the adaptation worked out is an appearance of conformity, as distinct from any genuine effort to conform.* Behind this appearance is concealed stubborn, silent resistance, and a determination to preserve his creative drives, as his personal (and secret) treasure.

The suggestion inherent in the M development is that the effect of "pressure" had its onset and impact at a later developmental period than was true on Configuration II, so that the primitive satisfactions which sufficed in Configuration II would not serve the in-



dividual hypothesized here.

Prognostically this configuration appears to be favorable. Potential creativity is intact (M); reality orientation is good (D = 46%); the ability to accept common-sense values is well formed (P = 4.6 + 1.1). To a slight degree, given favorable circumstances, some interest in the external situation may develop (response to Cards VIII through X = 48%).

As to the reading problem, the suggestion is that the stress placed on reading by the environment has invested it with new meaning. Reading ability has become a symbol of participation in cultural demands. Since these demands are experienced as threatening to the Ego, such participation becomes intolerable. This adaptation is an attempt to resist them without open friction.

Configuration IV

Quantitative Requirements:

1. m has a numerical value of 2½ or more.
2. M is absent or, when used, has a numerical value of less than twice m.
3. FM is absent or, when used, its numerical value is less than twice m.
4. Sum of color is more than 2.[4] CF equals or exceeds FC.

TABLE IV Distribution of Ages for Children with Configuration IV

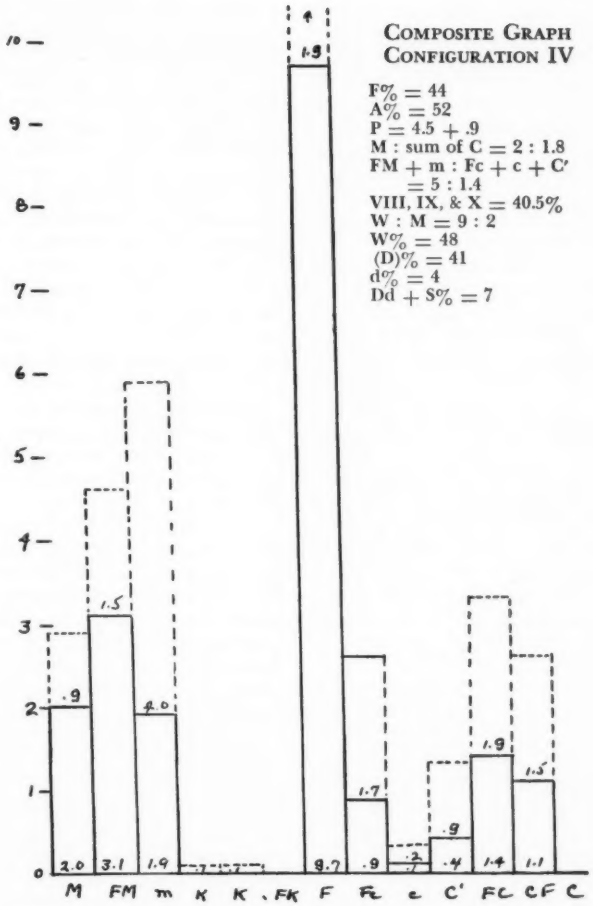
Age Group	Girls	Boys	Total
6 - 6-11	0	0	0
7 - 7-11	0	2	2
8 - 8-11	0	2	2
9 - 9-11	2	2	4
10 - 10-11	3	3	6
11 - 11-11	0	4	4
12 - 12-11	0	5	5
13 - 13-11	3	2	5
14 - 14-11	0	3	3
15 - 15-11	2	3	5
16 - 16-11	2	3	5
17 - 17-11	0	2	2
18 - 18-11	0	0	0
19 - 19-11	0	1	1
20 - 20-11	1	1	2
Over 21	0	1	1
TOTAL	13	34	47

In the fourth and final configuration, m holds the key position, being significant in its relation both to FM and M. Configuration IV also differs from the other configurations in that CF approximates and sometimes surpasses FC.

Since m is interpreted as indicating intra-personal tensions and strains, it is thought of as exercising an inhibiting influence on both the FM and M, interfering equally with the free acceptance of instinctual drives and with various sublimating and creative outlets to which these drives give rise. Ordinarily the conflict implied is thought of as centering in intrapersonal needs and reactions. In this case, however, the conclusion cannot be drawn that the m exists primarily as a result of an intrapsychic conflict. If that were the case, whichever determinant (M or FM) were the cause of the conflict, it would be expected to tower over the m, since its strength would be the threat which the m had been mobilized to fight. But here the m is dominant, holding both M and FM in check. It is clear, then, that there is no need for so active a censor. How, in that case, can we explain the persistance of the high m column? Only by positing that the true explanation of the conflict must lie elsewhere. We turn, therefore, to the color area, which is sizeable in this configuration only. The implication we find here is that the subject is responsive to affective stimulation; indeed he is responsive to a point where moments of strong feeling occur as often, or almost as often, as do those when a more surface pleasantness is all that is evoked. This fact seems so inconsistent with the repressive needs inherent in the m that it raises the possibility that the m may, at least in part, have arisen as an effort to prevent this strong emotion from finding any outward expression, redirecting it in order to render it

[4] It may occasionally happen in this configuration that color will be absent. When this is so, there must be at least three of the following qualitative indications of color disturbance.

1. Significant difference (more than 10 seconds) in reaction time between colored and achromatic cards.
2. Lowered form level in colored cards.
3. Remarks about color.
4. Avoidance of colored areas.
5. Color denial (refusing in Testing the Limits to concede that color may have played a part).
6. Disturbed content specific to colored cards.
7. Paucity of responses in colored, as distinct from achromatic, cards.



less harmful. If this is true, then the actual tension is due to continued experiences of strong feeling, continuing even though, on a conscious level. The subject may have succeeded in repressing recognition that this is so. Since however, it *does* persist, it is clear that a mere act of will cannot dissolve it and that it continues on as a threat. It must therefore be modified in such a way as to render it acceptable. This psychological need is accomplished by withdrawing the affect from the environment and directing it instead against the self.

When we search the Rorschach to learn how this adaptation was formed, we again glimpse a family and environmental situation similar to that in the three other configurations; the "good" home, the

submissive child, and the awareness of pressure. As in Configurations II and III, a sense of deprivation again appears to supply the motivation, but in this case it is the affective relationship which seems too precious to surrender. Yet it clearly cannot be continued in its old form, if the resentment engendered by the sense of deprivation is recognized as an integral part of the relationship. Since the resentment cannot be overcome, the psychological need becomes that of preventing it from being experienced as associated with the environment. This is done by turning the hostility against the self, for the "guilt" of harboring the resentment (see Blanchard, 1935). With this accomplished, the subject is able to feel that "Mother and Father are entirely just in all their demands and expectations. It is *I* who am guilty for not co-operating with them. It is because of *my* inadequacy and inferiority that their "good" plans have not worked out. (Sanford, et.al., 1943).

Since these feelings of unworthiness do not stem from the reality of the situation but are activated by the need to rechannelize an environment-centered conflict, the success of the adaptation becomes dependent on the child's capacity to engender and foster these feelings.

This sequence of events is important to recognize in considering the prognosis. It seems unlikely that any experience of adequacy, success, or superiority will counteract this adaptation. Such experiences, if they *do* occur in spite of self-sabotaging efforts to prevent them, become threats to the quasi-security which has been won at the sacrifice of the need for self-esteem. Experiences of success, therefore, only add to the tension by making it more difficult for the subject to continue having these self-accusatory feelings. It is not surprising that interest in the reality situation is weak (D only 41%), in spite of evidence of ability to understand usual values and motivations ($P = 4.5 + 0.9$). It seems inevitable that the present trend should be toward a markedly increased introversial concentration ($FM + m : Fc + c + C' = 5.0 : 1.4$). In addition, there appears no basis for a hope that increased extroversial expansion will spontaneously take place (responses to Cards VIII through X = only 40%).

The situation therefore suggests that therapeutic help must be given the child before he can relinquish his need to condemn and sabotage himself.

The clue to the reading problem seems to lie in the expectation of failure which the child who makes this adaptation experiences, in approaching the task. One also might expect attention and concentration difficulties to arise as a byproduct of this combination of tension and conflict.

Survey of Related Studies

One cannot concern himself with the Rorschach records of non-readers without being interested in comparing these with the records of school successes. To date the literature on this subject is meager. Four studies which compare the Rorschachs of achieving and non-achieving students are reported (Gann, 1945; Margulies, 1942; Munroe, 1945; Steinzor, 1944). A fifth study (Abel, 1943) uses the Rorschach to compare a particular kind of "successful" and "non-successful" student; namely, mental defectives who, within their limitations, succeed or fail. In all these studies there is general agreement,

with Steinzor's statement, that:

> "Success is correlated with ability to make deeper personal contacts, and also with greater sensitivity and awareness of outer reality."

A second question might be raised: what is the Rorschach evidence of adjusted emotional growth? Rorschach, himself, describes the "optimal goal of development." He speaks of the harmonious relationship of three principles; rationality, capacity for 'inner' life, and emotional willingness to adapt.

Davidson (1945) has described certain "adjustment signs" found in the records of a group of highly intelligent children. We therefore have some basis for comparison, and know that capacity for outgoingness and the development of emotional stability and flexibility appear to be concomitants of adjusted growth. If the Rorschach equivalents of these traits are absent, this would seem to indicate a lack of adjustment in the non-readers. However, other studies in this area would also appear desirable, particularly studies investigating the possibility of configurations among reading achievers, and whether and how often such configurations occur.

Although these particular configurations have as yet not been described in specific terms in the literature, there have been two types of studies which point in much the same general direction: (1) those in which a personality adaption is described in terms of the Rorschach but without reference to reading retardation, and (2) those in which the adaption described is related to reading retardation, but without reference to the Rorschach.

In considering the literature which refers to the first type, it seems well, for reasons of comparison, to group the studies under the four configurations described in this paper. But, first a word should be said about the use of color in these Rorschachs (since all the configurations have in common suggestions of difficulty which in some respect centers around the color stimulus). According to Rorschach himself:

> "Color represents the extratensive features of the personality; the ability to get into rapport; the capacity for emotional adaptations, both personal and situational. Avoidance of color in the test indicates emotional timidity."

If that is so, then regardless of those factors which differentiate the four configurations, all the children in this study may be assumed to be emotionally timid in varying degrees.

A—Descriptions of Rorschach reactions or adaptations similar to each of the four configurations.

Configuration I

1. Too great a control of motility and affect changes emotional rapport into etiquette, and motility into "stiffness". Kinaesthesias (movement) and color responses invariably disappear in such a super-production of conscious control. The individual who is completely controlled by rules of etiquette approaches the pedantic personality, which gives neither M nor C responses, but a maximal F percent. (Rorschach, 1942.)
2. The control of any subject of more than average intelligence whose record contains more than 50 percent F can be called constricted. Obviously the more closely F percent approaches 100, the higher the degree of rigidity. . . . The same conclusions seem to be valid for children of school age. (Klopfer, 1942.)

Configuration II

1. It seems safe to assume that they

(the FM and M responses) represent the influence of the most instinctive layers within the personality. . . . Invariably, when there is reason to assume a subject is emotionally infantile, living in a level of instinctive promptings below his chronological and mental age, the Rorschach record of this subject shows a predominance of FM over M. (Klopfer, 1942.)

2. FM implies imaginative excitation in response to emotional stimulation, but there is less direct, less conscious, and consequently less mature awareness of the nature and direction of the aroused feelings (than in M). A large excess of FM and an absence of M would encourage the impression of a baby-like deficiency in self-control, and in insight; both factors which contribute to intellectual creativity and emotional depth, when these factors are constructively used. (Goldfarb, 1944.)

Configuration III

1. A too great prevalence of M responses indicates decline of spontaneity and abating of the intensity of drives, and their stirring for expression. . . . With too much delay the impulse is impoverished. (Rapaport, 1946.)
2. In certain Rorschach records we may find a surprisingly vivid imaginative activity, producing rather superior organization of the material in some cards. Alongside of these superior responses one may find a complete absence of reaction to the emotional implications of the stimulus material. Finally, there may be a lack of attention to the concrete details of the obvious or everyday variety. In such cases, one could speak of a complete inversion of all intellectual energies, combined with a markedly negativistic and a deprecatory attitude of environmental reality. In their attitude to school work such children frequently show an ambition for non-achievement. (Klopfer, 1945.)

Configuration IV

1. If m reaches or outnumbers either M or FM, then it seems to be a danger signal indicating that . . . inner conflicts are too strong to permit a close cooperation between the inner and outer life. (Klopfer, 1942.)

B — This lack of close co-operation is well depicted in the following two references. The first reference in large measure describes a Configuration I adaptation, with possibilities of development into either Configuration II or III, should the threat to security occur after some degree of personality growth has taken place. The second reference sensitively and aptly portrays the adaptation here called Configuration IV.

1. For the sake of security with his parents, the child will make any change necessary in his instinctual activities. Distortions and inhibitions of elementary functions must therefore be accounted for by the history of the socializing experience. . . . Given adequate intelligence, the child must still have preserved the courage for active curiosity, if he is to learn to read. The earliest objects of curiosity are the child's own body, and the immediate objects and persons of his early environment, together with their mutual relationships. Curiosity, as an aspect of the exploratory function, is thus influenced by the earliest inter-personal experiences, with all their emotional connotations. The learning process, then, may become conditioned by anxiety, which is generated by:
    1. Inadequate capacity for mastery.
    2. Fear of loss of love.
    3. Patient's own destructive threat toward the person on whom he depends. (Sylvester and Kunst, 1943.)
2. In the cases (presented) there were anxiety and guilt over hostility, and the sadistic fantasies in which this feeling found expression, together with considerable effort to maintain repression of the fantasies and emotions. . . . If the neurotic often

represses aggression, and turns it back on himself in his symptoms, likewise aggression is repressed and turned back on the self in these reading disability cases. . . . It seems that there is also an element of atonement and self-punishment in reading disability cases since, by the failure in school, the child produces a situation in which he is exposed to constant criticism and reproof from parents and teachers. . . . While we do not claim that reading disabilities are invariably of complex psychological origin, our experience does indicate that, in many cases, the failure in learning to read may be a part of the child's more general difficulty in achieving normal emotional growth. (Blanchard, 1935.)

SUMMARY

This paper considers additional aspects of the previously presented hypothesis that marked reading disability, occuring in individuals of normal intelligence, indicates indirect (often unconscious) resistance to environmental pressure.

Four Rorschach configurations are discussed from this viewpoint. They were found by the writer to characterize the non-readers with whom she worked, and are felt to indicate types of adaptations which these individuals make to environmental pressure. The particular adaptation developed by each of the four types is felt to be related to the degree of ego strength available at the period when the pressure was first experienced.

REFERENCES

Abel, T. M. 1943. The Rorschach Test and School Success Among Mental Defectives. *Ror. Res. Exch., 9,* 105-110.

Blanchard, P. 1935. Psychogenic Factors in Some Cases of Reading Disability. *Amer. J. Orthopsychiat., 5,* 370.

Colm, H. 1948. The Use of the Rorschach for Children in Diagnosing Inter-relationship Difficulty Between Parents and Child. *J. Child Psychiat., 1,* 247-265.

Davidson, H. H. 1945. *Personality and Economic Background; A Study of Highly Intelligent Children.* New York: King's Crown Press.

Gann, E. 1945. *Reading Difficulties and Personality Organization.* New York: King's Crown Press.

Goldfarb, W. 1944. The *A* Symbol in the Rorschach Test and an *A* Association Test. *Ror. Res. Exch., 9,* 13.

Klopfer, B. 1945. Personality Diagnosis in Childhood. In *Modern Trends in Child Psychiatry* (Ed. by Lewis, Nolan D. C. and Pacilla, Bernard L.). New York: Internat. Univ. Press. 89-101.

——— and Kelley, D. 1942. *The Rorschach Technique.* Yonkers: World Book Co.

Margulies, H. 1942. Rorschach Responses of Successful and Unsuccessful Students. *Arch. Psychol.,* No. 271.

Munroe, R. L. 1945. Prediction of the Adjustment and Academic Performance of College Students by a Modification of the Rorschach Method. *Appl. Psychol. Monog.,* No. 7.

Peattis, D. C. 1935. *An Almanac for Moderns.* New York: G. P. Putnam Sons.

Piotrowski, Z. A. 1943. Tentative Rorschach Formulae for Educational and Vocational Guidance in Adolescents. *Ror. Res. Exch., 7,* 17.

Rapaport, D., Gill M., Schaefer, R. 1946. *Diagnostic Psychological Testing.* Chicago: Year Book Publishers.

Rorschach, H. 1942. *Psychodiagnostics* (English translation). Berne, Switzerland: Hans Huber.

Sanford, R. N., et. al., 1943. *Physique, Personality and Scholarship.* Washington Society for Research in Child Development, Natl. Res. Council.

Steinzor, B. 1944. Rorschach Responses of Achieving and Non-Achieving College Students of High Ability. *Amer. J. Orthopsychiat, 14,* 494-504.

Sylvester, E. and Kunst, M. S. 1943. Psycho-dynamic Aspects of the Reading Problem. *Amer. J. Orthopsychiat., 13,* 69.

Vorhaus, P. G. 1944. Non-reading as an Expression of Resistance. *Ror. Res. Exch., 10,* 60-60.

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CASE STUDY

Case Study of an Adolescent Boy With Reading Disability

PAULINE G. VORHAUS, ED.D.

Paul is a sixteen-year-old boy, the adopted son of American-born Jewish parents, both of whom are high school graduates. They have one own child, a daughter, seven years older than Paul. One other child (a son) had been born three years after the birth of the girl but had died in infancy. The adoptive mother was thirty-two years old at the time of the adoption; the father was thirty-six. The father is a businessman, and for the last several years has owned his own retail business. Prior to this he was a salesman, whose work required that he be away for several weeks at a time.

The mother states that Paul was a physically robust child at the time of adoption (when he was twenty-one months old) but was not walking or talking. He started doing both almost immediately, with no preliminary crawling and only limited use of baby talk. In a very short time he was using sentences. His health during childhood continued good. His appetite was excellent and his sleep sound. Enuresis was no problem. Paul has seldom been sick, and has had nothing more serious than mild cases of measles and of whooping cough.

The mother reports that throughout childhood he was ordinarily calm and composed, and seemingly had no fears or inhibitions that she could note. He was affectionate and outgoing, and has in general remained so, except for a short period about the time he entered high school, during which he showed considerable oppositionalism and negativism. He has apparently outgrown this; all that remains is a tendency to moodiness which did not characterize his childhood.

The mother describes the family relations as excellent, stating that the father has always been "wonderful" with Paul, trying to compensate by extra treats and special occasions for the periods when his work took him away. He also has taken pains to make his home coming an event, by always bringing some present which Paul particularly likes. Paul has looked forward eagerly to each homecoming.

In speaking of the adoption, she states: "We have always been concerned to do everything possible for the boy, feeling an extra responsibility because he is adopted." So far as the parents can judge, the older sister has always taken much the same attitude that they have. She had been eager for the adoption, and no evidence of sibling rivalry was noted on the part of either. She has been married and living away from home for several years.

The present problems were first apparent when Paul entered high school, evidencing themselves through school difficulties and through negativism. The mother adds that he tends to belittle himself by comparing himself unfavorably to other boys, and that he often appears tense and restless.

WECHSLER-BELLEVUE TEST EVALUATION

According to this test, Paul's

WECHSLER-BELLEVUE INTELLIGENCE SCALE

Verbal Scale I.Q.	114
Performance Scale I.Q.	109
Full Scale I.Q.	113

Verbal Sub-tests	*Weighted Scores*	*Performance Sub-tests*	*Weighted Scores*
Information	8–	Picture Arrangement	11
Comprehension	13+	Picture Completion	9
Digit Span	8–	Block Design	10
Arithmetic	8–	Object Assembly	13+
Similarities	13+	Digit Symbol	14+
Vocabulary	12		

general ability to function intelligently is somewhat above the average level of his age group. This appears true both in regard to those tasks which require a theoretical, abstract type of thinking, and those which are of a more concrete nature, and depend, at least in part, on proficiency in visual-motor coordination.

As we investigate further, however, it becomes clear that this general bright-normal ability should not be construed to mean that Paul displays even and consistent ability to perform each of the skills called for by the subtests. Quite the contrary is the case, to an extent which makes his present high average level a mere hypothetical construct—a mark arrived at on paper, as a result of "averaging" the successive subtest scores. Instead of concentrating on this over-all classification, therefore, it would appear fruitful if we seek to understand this boy more fully; to consider the implications inherent in these successes and failures.

There are five subtests in which Paul scored significantly above the means for his age group (Comprehension, Digit Span, Similarities, Object Assembly and Digit Symbol). Two subtests (Arithmetic and Information) fell significantly below this mean. Interpreting his successes according to the rationale advanced by Wechsler (1944, pp. 81-98) it may be hypothesized that Paul is above average in such abilities as are implied by the terms: 1) exercise of judgment, 2) use of the cognitive processes and 3) the ability to give and sustain attention. Re-phrasing this with reference to the picture it gives us of Paul, it seems possible to say that he is both brighter than the average boy of his age and more capable of keeping the factual aspects of the situation in mind and of lending himself whole heartedly to the requirements of a variety of task conditions.

But here we come upon two seeming contraditions. The first is a discrepancy with the case history data; we know that Paul is *not* doing any of these things on a level above the average for his age. He is tense and strained in his behavior; he is *not* keeping up with his class, and he is not acting with sense or judgment in constantly belittling himself in comparison with other boys.

The second discrepancy is implicit in those subtest scores in which he fell below average for his age group (Arithmetic and Information). If he is better able to attend than the average individual of his age, how shall we explain the concentration difficulties implicit in the low arithmetic score (since at his academic level it seems reasonable that careless

errors due to concentration failure, rather than trouble with those relatively simple arithmetic problems, caused this low score)?

One might also expect that there would be a correlation between intellectual ability, capacity to react sensibly, and general alertness to the world around him (as the latter is exemplified in the Information subtest). Before venturing on a psychodynamic interpretation, it seems worth recalling that Wechsler (1944, pp. 82-83) refers to a correlation existing between scores on these subtests and school failure or success. But when the low score in Arithmetical Reasoning is found along with significantly high scores in Digit Span and Digit Symbol, it seems reasonable to raise the question of the meaning of this test suggestion of "ability to attend" linked, as it here is, with test evidence of concentration difficulty. And when the low score in Information accompanies an I.Q. of 113, along with marked success in the particular verbal subtests discussed above, it also seems reasonable to wonder why so bright a boy, and one so able to "see eye to eye with others" should be so lacking in interest in the world around him.

In trying to answer the first question it seems worth recalling that Paul significantly exceeded the mean for his age group in both Digit Span and Digit Symbol. Interpretively, it is usually assumed that marked weakness in both these subtests suggests intra-personal tension or strain (such as the history, in this case, indicates). While there is no basis for assuming that the opposite is always the case, the likelihood that the individual feels reasonably at ease is strengthened by the fact that both subtests are significantly high.

What then is the answer? Is Paul suffering from anxieties and tensions (as the case history data indicates, and as the failure in arithmetic, in part suggests) or is he relatively free from subjectively felt anxiety, as we might infer from the Digit Span and Digit Symbol successes? Also, why if he is "withdrawn" in his interests should he show such good capacity for reality orientation?

These questions are legitimately raised by the foregoing analysis. They cannot, however, be answered at this time. The points raised here must be considered along with the Rorschach and Thematic Apperception Test results.

Rorschach Protocol

Card I

3″

1. Some sort of a fly or a bee—wings, body, tail, the part jutting out from the head. Forget what it's called. I believe it was in flight at the time, because of wings spread. Reminds me of Queen Bee but don't know why.

1. Q. Queen Bee because the body in some way reminded me of that.

2. Now I see, in half of it, a part of a face—profile. One of the hands sticking out—part of the body, say down to waist. Also sort of wavy hair. Reminds me of an old woman, with maybe a hat on.

2. Q. Old woman because of ragged lines which suggested age, and the shape of the nose, probably reminds me of some women I know. Also the breast looks like a woman. Q. Wavy hair because of the two jutting parts. Q. (Sticking out?) It's out here.

3. Also at the bottom I see two hands.

3. Q. It reminds me of something I saw somewhere, of two hands sticking out as if they were going to clasp over the unity of two forces (like the North and South meeting). These look as if they have gloves on because can't see the fingers.

4. Here I see, using my imagination, a rock in the form of a triangle, ocean nearby with big waves, white space might be the foam.

4. Rock and water meeting, with land showing on the right. Q. First the rock reminded me of the Rock of Gibralter, because that's the first rock I ever knew anything about. Then, as I looked at it, it reminded me of a rock at a camp I went to for three years. The lines are jagged, in the form of breaking waves, maybe spray here, though it wouldn't be on this side, but on the other.

CARD II

8″

V 1. See sort of a head, as if I were looking down on it—eyes bulging out, nose, neck. The body seems squashed out—flattened—with the red at the end meaning blood, coming out of the body.

1. Q. Eyes, nose, neck, sort of where the shoulders begin. Q. It looks like some sort of animal, with a sort of triangular face. Q. (W?) The wings and the blood coming out of the other end. This (lower Ds) has nothing to do with it.

CARD III

3″

1. Two people dancing, see the heads, torso, one leg of each person, with something in the middle, a suggestion of something like mist blotting out actual body, to account for the separation of the legs.

1. Q. They could be either men or women, can't tell which.

V 2. This way I see, maybe two fires, smoke rising, being met by a wind which forms a sort of circle out of the smoke.

2. Here's the starting point (usual heads), smoke going up, making a sort of whirlpool. This (side Ds) doesn't enter into the picture at all.

3. The red spot on the side—some sort of flying animal, long tail, two feet. See the profile.

3. Q. Flying—because it looks like it was leaping into the air, and if you're in the air, you're flying. Q. It's an imaginary animal, half man, half horse. This one's head looks like a man, nose, eyebrow hanging over, something in back as if hair in knot. Of course that would suggest a woman, but some men wear their hair long. They did, anyhow, in the olden days.

CARD IV

5″

1. Looking down on a body again, I see a head with eyes sort of back on the side, two jetting prongs coming out of the side. Upside down it looks like the same thing.

1. (Lower D) Q. Head and this darker part (first cut off, then said, "It could go all the way up if you cut this part off"). Q. I like it that way better, it doesn't look like half then. Q. We have a television set and there's a serial with a sort of a dragon on, and it has a flat face and I guess that reminded me. Q. (Side D?) Could be wings or feet. It has a funny tail, as if the skin was off.

a) This part (side d) reminds me either of a snake coming out here, or some

sort of bird—a quack. I believe there's such a bird. Q. More like bird than snake, profile, head and neck. It seems to be in flight or looking for something, the way it has its neck stretched out.

CARD V

3″

1. Again some sort of winged animal, head and double tail.

1. Q. Some sort of bee or fly, that type.

2. This way, a profile of a heavy-set man, only see the face, large nose, high forehead, thin hair, pipe coming out of mouth, sloping down.

2. Q. I had the impression that the hair is thin because it reminded me of my own, sort of jagged and short. Sort of unfinished pipe, without the actual smoking part. It looks like he has a moustache now. This line, a thin moustache, which I don't picture on a man of this type—long face.

3. This way I also see two bookends, of the head I've just described.

3. Bookends because of the angle they were put.

CARD VI

5″

1. I've just had a funny vision. Top part reminds me of a bird of a certain kind,—no, not a bird—mosquito.

1. (Upper D) Q. Head, wings, these two hairs jutting out here, the dark color grey and black. Q. Mosquito rather than bird because smaller, more petite.

∨ 2. I see Santa sticking out his arm.

2. Q. Did I say, "arm?" That's a mistake, I meant nose, not arm. It's just a profile (response 3). Q. Cap, eye, long nose, mouth, long chin. Q. Don't know why Santa Claus. Well, the nose sort of reminded me of the Santa that some people picture. Now it reminds me of Hitler. Q. Sort of a sinister look, and if the nose were cut down and made into a different shape it would look like him.

3. Profile again of a man's head.

4. Also see a rock that reminds me of a rock I saw in Arizona. I believe it's called the Salt Rock.

4. (d the rock). Q. Just the edge (d).

CARD VII

4″

1. I see two female faces, with upswept hair or hat; arms back on a level with their shoulders, as if under water swimming, and just rested on the rocks below. This is a good one!

1. Q. Under water because of the head sticking out, as if the water is forcing it up. And the arms going back, as if straining themselves. I got that from my own experience swimming. Q. (Lower D) The rocks.

2. I see three rocks connected in the middle of a stream, as if you're going to walk across.

2. Q. Middle of stream because I remember once, years ago, I was with some fellows and I fell in and got my shoes wet. Q. Rocks because big like rocks, and I've seen numerous pictures of rocks in water.

∨ 3. Also see a mountain you can't climb. I should say that the reason you can't climb it is that rocks are balanced in such a way that if you touch them they fall.

3. That was very far-fetched. Q. It's six rocks together, not a real mountain.

CARD VIII

3″

1. A technicolor version of nothing.
1. Just a lot of colors—some colored picture.

2. Oh, here two animals—long tail, prehistoric looking, head, long body. Can see two feet, looking over a ledge.
2. Q. Prehistoric because of the long tail. Sort of looking for their prey.

3. The scale of a skinned fish.
3. (Inner D) Q. Scales are the body with skin removed. Q. The scales are the bones.

CARD IX

3″

1. Lobsters. Thats all.
1. Just this part jutting out (d). Q. Just the feet or hands or whatever you call them. Q. Dont know why lobsters. The feet just look that way.

CARD X

5″

1. A little animal with overgrown wings.
1. (Lower D) Q. Very small body, with something sticking out. Don't know what you call them. Head sort of looks inverted, as if the prongs should be below. Wouldn't be anything special, but head wouldn't look so small if they were below. Odd-shaped wings down here.

2. An octopus.
2. (Side D) Q. So many jutting arms.

3. A flying horse or a reindeer.
3. (Side grey) Q. Flying because it seemed in the air, legs back as if it had leaped. It's descending. Q. Don't see wings, that's why I changed it to deer.

4. Two sea urchins with a pillar behind. that's all.
4. (Upper D) I think that's the most prominent thing Ive seen in the cards. Pillar between. Mouth, eyes, look as if they were angry. Q. Because of set of mouth and eyes. Things coming out of the head, like long-stemmed flowers. Can't imagine why, except to make it more complicated. (Laughs.)

ANALOGY QUESTIONS

CARD I

2. Q. (Fc?) Not used.
4. Q. (K?) No, it was height, not depth.
4. Q. (cF for rock?) It's darker on one side and lighter on the other, as though the sun is shining on it.

CARD IV

Q. (Fc?) The skin was off the top, as though you're looking at the tail through an X-ray.

CARD V

2. Q. (Fc for hair?) Not used. But there's a slight shading on the mouth that gives a sense of depth.
Q. (M?) No. he's just there, that's all.

CARD IX

Q. (FC?) Used. They *are* red.

CARD X

4. Q. (FM or F,m?) They don't look real. There's just an angry expression.

TESTING THE LIMITS

CARD II

Examiner started to explain usual two animals. Subject immediately said, "Dogs, as if sitting and begging for something. The red part has no effect. Q. Scotties, because small and dark and the shape and the nose. Q. (Fc?) No, no real effect of fur."

CARD III

(Subject was asked to use center D (FC).) A butterfly or a bow tie. Could be either. Q. Well, the red suggesting a two-toned color, it's red and white.

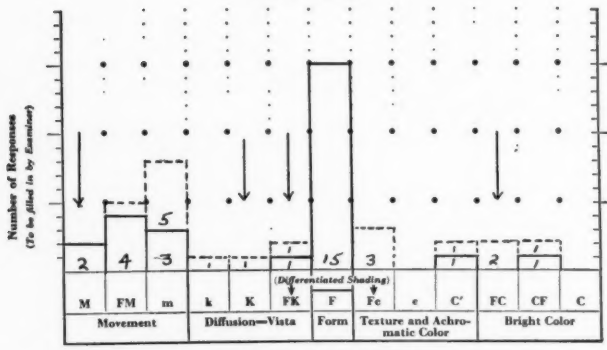
CARD VI

Fc offered. I *could* see a skin if I was looking for it, but it doesn't really look that way. Q. Can't tell whether fur or skin side, though it wouldn't look nice if skin side were up.

CARD II

(Asked to look for blood or fire.)
Well, this *did* look like blood to me.

PSYCHOGRAM


Number of Responses
(To be filled in by Examiner)
2 4 3 5 1 1 1 15 3 1 2 1
(Differentiated Shading)
M FM m k K FK F Fc c C' FC CF C
Movement
Diffusion—Vista
Form
Texture and Achromatic Color
Bright Color

RELATIONSHIPS AMONG FACTORS

Total Responses (R) = 27
Total Time (T) = 19'
Average time per response $\left(\frac{T}{R}\right)$ = 3/3'
Average reaction time for Cards I, IV, V, VI, VII = 4"
Average reaction time for Cards II, III, VIII, IX, X = 4"
$\frac{\text{Total F}}{R}$ = 56 F%
$\frac{FK + F + Fc}{R}$ = 59 %
$\frac{A + Ad}{R}$ = 44 A%
Number of P = 5
Number of O = 5 (1-) + 7 (2-)
(H + A) : (Hd + Ad) = 13 : 5
sum C = $\frac{FC + 2CF + 3C}{2}$ = 1
M : sum C = 2 : 1
(FM + m) : (Fc + c + C') = 7 : 1
$\frac{\text{No. of responses to Cards VIII, IX, X}}{R}$ = 33 %
W : M = 10 : 2
Succession.

Rigid — Orderly — Loose — Confused

(*Place a check mark at the appropriate point on the scale above*)

Estimate of Intellectual Level

Intellectual Capacity	*Intellectual Efficiency*
Very Superior	Very Superior
Superior	Superior
High Average	High Average
Low Average	Low Average
Dull Normal	Dull Normal
Feebleminded	Feebleminded

Note that this estimate is based mainly on the following:
number and quality of W
number and quality of M
level of form accuracy
number and quality of O
variety of content
succession

Manner of Approach

W(30 %) D(55 %) d(7 %) Dd $\frac{\text{and}}{\text{or}}$ S(8 %)

Enter the location percentages in the spaces above. Compare these percentages with the norms shown in the box below, by placing a check mark opposite the appropriate range of percentages.

W	D	d	Dd $\frac{\text{and}}{\text{or}}$ S
< 10% ((W))	< 30% ((D))		
10–20 (W)	30–45 (D)	< 5% (d)	
20–30 W	45–55 D	5–15 d	< 10% Dd S
30–45 W	55–65 D	15–25 d	10–15 Dd S
45–60 W	65–80 D	25–35 d	15–20 Dd S
> 60 W	> 80 D	35–45 d	20–25 Dd S
		> 45 d	> 25 Dd S

NOTE: The arrows indicate evidence (elicited in testing the limits) of some or greater capacity for the use of a determinant.

CARD III

(Upper red D) I can see that this might be called fire flickering up, if you're looking hard enough for it, but to me it looks like a saucy little red devil, sticking his tongue out at the two people. He's a likeable little devil, really doesn't look bad. It's more just a game he's playing.

RORSCHACH EVALUATION[1]

Paul, as he appears in this test, is a boy with a marked sense of inferiority.[2] According to the Ror-

[1] This is a sample of the Configuration IV type of Rorschach, described by the writer in the paper on Rorschach Configurations which appears in this same issue.

[2] a. m equals 3 plus 5.
b. Relationship between m and M and FM, in favor of m.
c. Relationship between the achromatic color and shading responses and the bright color responses, in favor of achromatic.

schach, there is no real basis for this feeling.[3] There seems no doubt, however, that feelings of inadequacy play an important role in his present functioning, and that, as a result of these feelings, he is tending to exaggerate the very condition about which he is worried. In other words, one can infer from this protocol that Paul constantly seems to fear that he will not measure up, and that his fear has such an inhibiting effect on his ease of functioning that he has actually started to create a situation which will justify his fears.[4]

This states the case, but by no means explains it. Why should Paul feel unreastically inferior, and why should these inadequacy feelings have developed so far that they actually have lowered his achievement level? The suggestion given here is that the inadequacy feelings, while uncomfortable in themselves serve an important purpose in this boy's psychological economy. They have developed to their present extent because, for him, they are the lesser of two evils; their growth has made it possible for Paul to repress other reactions, the recognition of which would cause him even greater pain.[5]

The Rorschach indicates that the reactions which he is sacrificing so much to repress are those resistances and negativistic feelings that are implied in the terms "adolescent turmoil." Considered in this light, Paul's problem essentially appears to be a "growing-up" problem—he feels inadequate *because* he has not been able to stand up against "Authority" and to assert his need to be independent.[6] The Rorschach hints that the genesis of this must be sought in his relationship to his parents. There are inferences that prior to the present period this relationship was a satisfying one for him. Paul had seemingly thought of them as loving, giving parents and as bedrocks of security.[7] The change in his outlook appears to have been deeply disturbing to him, both because it precipitated feelings of insecurity and because these new feelings were at such variance with his lifelong reaction of love and confidence.[8] Yet, in spite of himself, these oppositional feelings continued to recur. Paul suddenly interpreted his parents' attitude as hostile, tyrannical, lacking in warmth and understanding. He felt alone and unsupported. His parents had failed him.[9]

[3] Four responses with a Form Level of 2,5, or above.

[4] a. Four responses with a Form Level of below 1.0.
b. W:M equals 10:2.

[5] Testing the Limits evidence of repression of K and FK.

[6] a. Repression of strong CF responses, after an initial blood response in Card II. (The only main CF occurs as the first response to Card VIII "technicolor version of nothing".)
b. Indication of more CF capacity (see T.L. reaction to question about blood or fire.)
c. Repression of M (I.3, V.2, VI 2.)
d. Overstress of Dd and S.
e. Present marked withdrawal trend suggested by ratio between (FM plus m): (Fc plus C′) equals 7:1.

[7] a. Testing the Limits evidence of residual ability to react strongly, but with a preference for controlled use of color (FC) in a concept which features M. (Also Testing the Limits response to questions about Blood and Fire.)

[8] a. Disturbed reaction to Card II.
b. m and reaction to K and k (previously referred to).
c. Original content to VI.2 (Santa Claus)
d. Original content to I.4 (Rock of Gibraltar).
e. Fc used with the above response.
f. Testing the Limits ability to give FC responses.

[9] a. Withdrawal picture (see graph).
b. Changed content in I.2 and VI.2.
c. Content in VII, 2 and 3.

It is clear, however, that such a conclusion would be threatening to Paul, since his own security needs were centered in the opposite beliefs. Something in him, therefore, felt that, at all costs he must check this development and regain his old security.[10] As a first step in this direction he must come to believe that he is "wrong" (mistaken) in entertaining such thoughts. This, however, would require facing these thoughts in order to recognize that he was wrong (a requirement which, in itself, involved more of threat than Paul could handle). A second step therefore must be taken; that of immediately repressing these thoughts,[11] and displacing the sense of guilt from its original specific cause onto his general impulse toward emotional growth and independence. Since the specific "wrong" could not be faced, he substituted for it generalized feelings of inadequacy and inferiority.[12]

The Rorschach indicates that this essentially submissive adjustment has resulted in one further problem for Paul. He has had difficulty fitting himself into our cultural concept of masculinity ("an aggressive, forceful individual who regards independence as his prerogative.") Since Paul's adaptation is in exactly the opposite direction, it is not surprising to find that in addition to the generalized feelings of inadequacy, this specific focus of difficulty also appears.[13]

It should be stressed at that point that, objectively speaking, there is as little cause for concern with regard to Paul's potentialities for emotional growth as there is in the intellectual sphere. The Rorschach pictures Paul as having good capacity for reality orientation and sound ability to empathize with the values and attitudes of his contemporaries. His very concern with those problems which center around the establishment of his masculine role in itself indicates that sufficient maturity has taken place that this has become a problem area to him. The cultural stereotype so strongly pre-supposes dominant aggressive traits that its association with anxiety and insecurity is frequent at this period in a boy's life.

Thematic Apperception Test Stories

CARD 1. I see a boy looking at his violin laying on his music sheet. He was about to go out to play with his friends. His Mother caught him before he got out and told him that he must go and practice. He goes into the room, closes the door and starts thinking about how he's going to get even (like me). He's looking at the

[10] a. F equals 56 per cent.
b. Content in I.5.

[11] a. Repressed M to Card III (see Testing the Limits).
b. Comparison of the type of FM indicated by the two similar responses in Cards III.3 and X.3 (III "leaping into the air" and X "descending").

[12] a. Relationship between M and m.
b. Content of the spontaneous addition to III in response to the Testing of the Limits question about Blood and Fire.
c. Inquiry suggestion is I.4 indicating that the m is "on the wrong side."

[13] a. III.2 shows uncertainty about sex of the people seen.
b. IV.1 (analogy question) k is associated with upper d area.
c. IV. a. Conflict suggested in way Paul handles this d area.
d. VI.1. Both the content and wording of this response give a sense that Paul is harassed and bothered by these implications.
e. X.1. Again the content and discussion of the placement of the "prongs" suggest preoccupation and uneasiness.

violin with complete despair. After a while he figures—well—he realized his Mother did it for the best, and it was right, so he's going to pick up the violin and start playing. He'll expect his Mother to come at the end of the lesson and say, "O.K., you played enough, now you can go out." In other words, he expects a reward for doing it.

CARD 2. I see a farm being worked by the son or father of the family; the mother standing there watching, the daughter or sister, whichever it may be—most likely the daughter, going off to school. Girl looking back as if she'd rather stay with her than go to school. And so she goes to school. The man works the plow, and the woman goes in and cooks. And the girl is sort of downhearted for some reason. Looks as if she's looking at someone who just left.

CARD 3 BM. It's either a boy or girl. I'll say girl, leaning on a bed. No, I wouldn't say that, I also see another picture—it looks like a boy who's been shot, gun lying beside him. If it's a girl, she's crying over something that happened with a boy friend or a girl friend. If it's a boy, he was in the house with his friends. They were fooling around with a gun and he got shot. The consquences to the girl would be that his Mother would come in and straighten her out. Then supper. If it's a boy, they'd have him fixed up and make sure that all the guns were fixed so they couldn't go off.

CARD 5. A woman looking into a room, either a boy or girl's room. I rather think a girl's because of the flowers. The idea of the books knocks out the idea of a dining room; the idea of the folding table on the side knocks out the idea of a living room. The woman is looking in at someone's back, as if he, or she, is bending over a table. She—rather *I* think there was an argument downstairs, judging from the face of the woman. I don't believe the argument was between the daughter and the mother. It was between the daughter and the father, and she's come up to try and fix things up between the two of them, seeing that she couldn't approach her husband because of his stubbornness. I think you'll find out what kind of environment I live in. (Outcome?) Not any. The same thing happens again the next night.

CARD 8 BM. Two things: A young man's vision of being a surgeon, he sees himself operating with his assistant. Of course, he's the head surgeon! The other side is that he sees his Father or brother being operated on, while he waits outside for the results. All this work is being done under bad condition; suggestion of a sea operation—log cabin, or something of that sort. (Outcome?) If it's the relative, I don't believe he's going to pull through, because of the expressions on the men's faces. If it's the boy grown up, I see the same results. Q. The person will die.

CARD 13 MF. The man crying over his wife who is on her bed. I think he just tried to pull her through an operation—a baby—and then something was wrong before the baby was born and she died. There's also the idea that he attacked her and after he was finished, he was ashamed of what he did and she's out, or fell asleep.

CARD 14. A mixed-up boy. I'm ahead of myself—a boy looking out of a window. A mixed-up boy—been pondering over something. Doesn't know which way to turn. Been up all night and opens the window at the dawn and looks out, seemingly having a ray of hope. (Ending?) Can't tell at this point.

CARD 16. There's a family quarrel over a certain marriage (I'm telling this on purpose, it's what happened to my sister) over a question that seems to differ between the two people. The young couple appealed to both families, and finally decided, since they're going to get nowhere because of the stubborness of the boy's parents and the indifference of the girl's parents—they decided to run off and get married. Then they settle down in their home and before any childbirth they decide that the boy's parents were right in the beginning—and finally they all come to an agreement.

THEMATIC APPERCEPTION TEST EVALUATION

As one reads through these stories two immediate impressions occur. The first is the frequent presence of a "mother knows best" motif; the second, a conspicuous absence of aggressive feelings or reactions. On closer scrutiny an interesting observation is added; situations are frequently premised which might well call for aggressive reactions but somehow they never do. One also notes that, for all the "mother knows best" end-

TAT Summary Blank

CATEGORIES	CARD NUMBER 1	2	3 BM	5	8 BM	13 MF	14	16
A. Ways of Handling Materials								
1. Adherence to Test Instructions: 1 2 3 4	1,2 3,4	1,2 3,4	1,2 3,4	1,2 3,4	1,- 3,4	1,2 3,4	1,2 3,4	1,2 3,4
2. Type of Story: Real Fantasy	R	R	R	R	PR/R	R	R	R
3. Treatment of Story: Descriptive Static Dynamic	Dy	S	Dy	S	S/Dy	S	S	Dy
4. Length of Story: Short Long	L	S	L	L	S	S	S	S
5. Conspicuous Omission: Person Object			/OM		/OM			
6. Conspicuous Addition or Change: Person Object	P	P	P	P				
7. Personal Approach: Names Personal Reference	PR			PR				
8. Indication of Ambivalence or Indecision: Narrator Central Figure	CF	N	N	N	N	N	CF	CF
9. Continuation of Story: (Check each occurrence)								
B. Emotional Aspects								
10. Prevailing Mood of Story: Drab Exciting Happy Unhappy Angry Conciliatory Guilty Terrifying Suspenseful Frustrating	A C	D	UN	C		UN/G	A	F C
11. Mood of Ending: Appropriate Inappropriate	A	A	A		A	A		A
12. Evaluation of Ending re Cultural Standards: Conforming Non-Conforming	C	C	C			C		C
C. Central Figure — Environment								
13. Relationships Pictured: Family Love Social Vague Juxtaposed	F	F	F	F	J/F	F/L		F
14. Reaction of Central Figure to Others:								
a. **Positive** Central Figure is: Helpful Loving Protective Sacrificial Understanding	?			H	H/	H/		C
b. **Negative** Central Figure is: Hostile Punishing Withdrawn	H							H
15. Reaction of Central Figure to Environment:								
a. **Positive** Central Figure experiences his human environment as: Helpful Loving Protective Sacrificial Understanding Wise	W		H P					W
b. **Negative** Central Figure experiences his human environment as: Exerting Pressure Dominating Frustrating Hostile Punishing	EP							F
16. Situation in Relation to Central Figure: Favorable Unfavorable	UN	UN	UN	UN	UN	UN	UN	UN
D. Central Figure — Intrapersonal Situation								
17. Characteristics Ascribed to Central Figure:								
a. **Positive** Central Figure is described as: Ambitious Successful Good Outgoing Creative Self-Directing Reasonable	C	C		G	A/	G/		? C
b. **Negative** Central Figure is described as: Unambitious Unsuccessful Bad Withdrawn Listless Dependent Unreasonable	NC	UN				/B		
18. Mood of Central Figure:								
a. **Positive** Central Figure is: Happy Eager Friendly Secure Compassionate Realistic	T			C				F
b. **Negative** Central Figure is: Unhappy Apathetic Hostile Conflicted Self-Pitying Unrealistic	H	UN	UN			UN/G	A	H

ings, there appears to be no real sense of dependence or infantilism.

The question which is therefore suggested at this point is why Paul touches aggression, as it were, with his finger tips, as though he is simultaneously intrigued and intimidated.

In studying the TAT Summary Record Blank with this question in mind, a number of recurrent suggestions seem worthy of mention:

First, there is the constant evidence of ambivalence or indecision (A 8). Everyone of the eight cards has an entry in this category. A state of conflict seems strongly in-

dicated. One might hazard the guess that Paul is aware of his susceptibility to such inner turmoil since, in five of the eight stories, the indecision is Paul's own and is not projected onto the Central Figure. (It is the Narrator himself who cannot decide between two story possibilities.) Three entries under *Personal Reference* (A7) strengthen this suggestion, since considerable self-preoccupation may be inferred when three out of the eight stories remind him in some way of his own situation.

In this connection it is interesting to observe how close Paul comes to aggression in these personal-reference stories, and the way he veers away from it. In Card I the boy "starts thinking how he's going to get even (like me)." But, two sentences further on he says. "Mother did it for the best and it was right."

In the alternative story to Card 13 MF the man, having attacked the woman, is ashamed. In both Cards 5 and 16 a daughter-father quarrel is pictured. Since in both stories Paul actually refers to his own home situation, the extent to which he keeps himself out of the quarrel seems noteworthy. One suspects that Paul gets indirect satisfaction or release through identifying with the sister who clearly is better prepared to enter into such a quarrel than he is.

This picture of a submissive adaptation (albeit in the framework of fascination with the idea of aggression) is further enhanced by the fact that in category B12 (Evaluation of Ending re: Cultural Standards) five of the stories end on a conforming note. It might be added that the other three are not non-conforming; the entry is simply left open.

The seven entries of "family" in category C13 (Relationships Pictured) makes it clear that a large share of Paul's thinking centers on his family situation, always with a loving (protective) mother, and several times with a hot-headed, but seemingly basically wise (or good) father. That being the case, it is surprising to note the repeated entries in C16, picturing situations *unfavorable* to Central Figure. Can it be that, in spite of the emphasis Paul places on family protection and love, he in some way experiences his situation as one which is unfavorable to him?

The only clue which appears is in Card 14, the "mixed-up boy." Paul reacts so immediately to this sense of the boy being "mixed-up" that, to quote his own words, he "gets ahead of himself," and must go back and starts his story over at the beginning. A feeling of self-identification would seem implicit in this over-impulsive beginning. If this is so, the way the situation is described takes on significance. The boy in the story is clearly concerned with working out his problems by himself. The omission of reference to parents in this story is conspicuous.

And, as the dawn approaches, "he opens the window and looks out, seemingly having a ray of hope." But in answer to the question as to the outcome, Paul replies, "You can't tell at this point."

We are now ready to place these various bits of evidence together and to seek to learn why, in this "protected" atmosphere, Paul should view the situation as continuously "unfavorable to the Central Figure."

It seems as though the aggression he feels (as is hinted at in Card I) is directed against this loving but pressure-exerting situation. It appears, however, that he feels guilt

and is thrown into conflict at any expression of this aggression (as witness the indecision evidenced in A8 and the fact that his sister, not he, is pictured as quarrelling). However, we suspect that there is lip homage rather than genuine dependence shown in his reiteration that "Mother knows best." When, in Card 14, a boy is pictured as having a problem to work out, he faces the situation alone, with no suggestion that he will call for help.

Since the stories are predominantly realistic (A2) and the endings appropriate (B11), Paul appears reality centered and factual in his thinking. The interest evidenced in working out his own problem is then grounded on a basic soundness of orientation, which makes the "ray of hope" seen by the hero of Card 14 take on a fairly rosy glow. The problem would appear one of finding a satisfactory way of working out his aggressive-submissive conflict. The difficulty seems environmentally created and not one of a fundamentally "mixed-up boy." If then, the problem created by the family attitude could be solved, the outlook would seem to be good.

Rorschach and Thematic Apperception Tests Considered Together

The TAT indicates that conflict, ambivalence and problems of aggression versus submission may be the focal points in this boy's present difficulty. It suggests that aggression is largely repressed, with only submissive reactions appearing in his behavior. It hints that there may be association between this conflict and his work-a-day difficulties, through the suggestion that, while he participates, his efforts are devoid of interest and creative enthusiasm (A4). He appears too preoccupied with his problem, and with the family situation around which it centers, to be able to lend himself to other matters. His reality orientation, however, is sound, bespeaking good ability to react appropriately.

The Rorschach suggests that a possible explanation of the above may be sought in Paul's relationship with his parents. It paints a picture of early gratitude and strong ties of a kind which made "adolescent rebellion" take on aspects of guilt. As a result, resistance seemingly became taboo. Aggression therefore, was turned inward, finding expression in feelings of inadequacy and inferiority. Paul, as he appears here, functions below his capacity level. He appears to have avoided anxiety and conflict, but he has done so at the price of unhappiness and a mediocre performance.

Wechsler-Bellevue and Projective Techiques Considered Together

The Wechsler-Bellevue raised a number of questions, the answers to which were deferred until the other tests had also been evaluated. First there was the question why "concentration difficulties" should be indicated without accompanying suggestions of "difficulties in attention." Also, why should Paul's test results lack the usual suggestions of "intrapersonal conflict," when the case history stresses his feelings of inadequacy? An answer is offered by the projective tests, in the portrayal of the mechanism which Paul has used to avoid facing his own conflicts. He has managed to free himself from subjectively-felt anxiety and tension by an inversion of his aggressive impulses. He is there-

fore able to be attentive, since he has pushed those conflicts which interfere with attention onto other areas. But on a deeper level, he *is* in conflict and is therefore not able to sustain attention in the way that is essential to real concentration.

A clue is also offered regarding the meaning of his poor work in the Information subtest. Paul is too preoccupied with his constant need to keep his aggression directed against himself to be able to be actively interested in what is going on around him.

In considering the referral problem (Paul's present school difficulties) in the light of this evaluation, it now appears that merely to center on these difficulties would be to mistake the effect for the cause. Rather, they should be dealt with in the light of the personality problems which have given rise to them. These may be summarized as follows:

a. He approaches tasks with a sense of inadequacy which leads to an expectation of failure.
b. He is so self-centered in his thinking that he largely lacks the interest in exploring and achieving on which academic success so greatly depends.
c. His ambivalent feeling toward his parents makes the effort to please them by his success frequently run counter to the impulse to punish them with his failure.

Clearly, any far-seeing remedial plan must include an effort to free Paul's capacity through a resolution of his more deep seated difficulties. If he can become sufficiently free in a relatively short time to turn his attention to his work, these tests offer every reason to believe that he will succeed.

INTERPRETIVE INTERVIEWS

The interviews which follow represent the uses made of test interpretation in bringing this about. They are condensations of approximately four and one-half hours of interviews, first with each of the parents and then with Paul himself. There are two reasons why the material is abstracted, and not given in full: First, the confidential nature of these interviews requires the changing and deleting of identifying data. Second, the interviews are frequently prolonged to enable the client to set his own pace in arriving at insight, with the result that much of the conversation is, of necessity, repetitious. Repetition considered in this sense is often a way of viewing and re-viewing the problem, until it becomes familiar, and hence less frightening. No useful purpose is served here by including repetition. In the writer's opinion, nothing of intrinsic importance has been lost, either through the changes or the deletions.

These reports are also condensed with respect to speed of insight. In actual situations, several talks may be necessary before one or both of the parents arrive at the point described at the end of these interviews. Sometimes it becomes necessary to refer the parents to a counselor or a therapist for more extensive discussions. But essentially the procedures described here are the same, though in a more telescoped form.

Separate interviews were arranged with each parent, because the nature of Paul's difficulty (as glimpsed through the Rorschach) made it seem probable that the parents' point of view would be somewhat at variance. It always seems a better plan to have separ-

ate interviews, since it tends to make for greater freedom and frankness. But frequently separate interviews cannot be arranged, and instead there is either a joint interview or else one parent is seen alone and assumes the task of relaying the information to the other.

It will be remembered that the Rorschach indicated that Paul's picture of his parents during the period of active resistance was at variance with both his childhood picture and the one he has now formed. It is therefore important, before any interpretation is given, to ascertain which picture most closely corresponds with the objective facts. The conclusions arrived at will largely determine the subsequent nature of the interview, both with regard to the selection of aspects to be stressed, and with regard to plans for remedying or modifying the situation.

After this has been determined, the way is clear for a consideration of the problems raised by the test evaluations: How do the parents understand Paul's behavior? What do they make of his shift from resentment to submission, his increasing feelings of inferiority, has academic difficulties? How much insight do they presently possess? How much more can they acquire through the interview?

This much of the interview is planned in advance, at least so far as the psychologists' goal is concerned. The procedure itself cannot be planned, since the object is not to "tell" Paul's parents anything, but instead to create a situation that facilitates the gaining of insight and understanding. It is important that this should happen, both in order to arrive at the truth about Paul's parents and to help Paul's parents arrive at the truth about Paul. It should be stressed that direct statements will bring little result. The psychologist does not want to know what Paul's parents *say* about their relationship to him; he wants to discover what feelings underlie the statements they make. Regardless of whether the parents mean to tell the truth or are deliberately trying to distort it, the likelihood is that "the truth" is something which lies too deep to be revealed through a factual evaluation of statements. It can therefore only be uncovered if one searches behind the words, to the meaning of these words.

Interview with Paul's Mother

The interview with Paul's mother took place first. She had previously been given the results of the various reading, auditory, and visual tests. It had, therefore, already been established that Paul has no marked technical educational defect or physiological limitations, of a kind which would account for the reading retardation.

The psychologist started by referring to this fact, and adding to it the statement that the tests indicated his intelligence to be above that of the average boy of his age. His mother responded by asking the psychologist if she would explain this to Paul: "He's beginning to think there's something wrong with his mind. He worries a lot about the bad marks he's getting."

"Does he worry about other things, too, or just about his marks?" the psychologist asked. The mother indicated that he is generally uneasy, "particularly if he's had any words with his father." Questions referring to the father-son relationship followed, which, in part at least, were directed to learning the mother's reaction to

the situation. The mother described the relationship as particularly close and warm, with the father taking an active interest in everything that concerns Paul. The psychologist asked if that had always been so. The mother said, "Well, they weren't really *close* when Paul was little, but they always got on well, except for a short time about two years ago." A question about that period revealed that Paul at that time resented his father's supervision. He had tried to avoid confidential talks. The mother stated that he replied to any questions his father asked in a sulky and evasive manner and that on occasions he expressed outright resentment at the help and advice his father was suddenly offering. "You see, it was only from high school on that his father started helping him with his homework."

The psychologist asked what had happened to bring this resentful period to an end. The mother said she thought it was due to the father's attitude; he had been so hurt and surprised by Paul's resentment, and spoke so often of how unhappy Paul was making him. He told Paul how indifferent his own father had been to his school problems, and how he had always thought that if he had a boy he would treat him differently. No one knew better than he how much a father who was interested could do for a boy. And now look at the thanks he was getting!

The psychologist asked for more specific evidence of the way Paul had reacted to such talks. The mother said it always ended in the same way: Paul would cry and ask his father to forgive him. He even would urge him to give the advice which a few minutes before he had resented. Gradually there were less of these situations. Paul didn't even fight any more; if, for a few minutes, he felt upset, he would go to his room without saying anything. When he came back he always made a great fuss over his father. Paul's mother ended by saying, "They're just like two friends all the time now. His father is very happy about it."

The psychologist asked the mother if she thought Paul really felt happy. She thought a minute, then said, "Well, sometimes I wonder. He's become so quiet. And now he is beginning to think there are so many things he can't do—he really seems to want more advice and to need more things done for him than he did when he was a child. He doesn't seem to want to decide things for himself at all, and he was so independent and cockey when he was a little fellow." The psychologist asked the mother whether she had any idea what might have caused this change.

"Well, I sometimes have a queer feeling that maybe we've been wrong to hold him down so much. I've never really said it before, I'm not sure I exactly thought it, but now, as I've been telling you these things, I've been thinking more and more that maybe we've kept Paul from growing up. We've meant it for his own good, of course, but maybe a boy has to make his own mistakes and learn in his own way. It's been foolish, too, because we won't always be there to tell Paul what to do and to fix things up for him. I'm afraid to think how hard it will be for Paul, when that time comes, if he hasn't learnt how to take care of himself."

This was the answer to the psychologist's unspoken question. Paul's mother was capable of insight. She had developed attitudes in the course of this interview

which, to some extent, would modify her thinking. Three things remained to be done:

1) To give her support and reassurance concerning her own appraisal of Paul's intelligence,
2) To explain the relationship between the feelings of inadequacy which Paul had developed and his school anxieties and difficulties,
3) To discuss with her how best to help the father to arrive at similar insights.

The first objective was achieved by reading to her that part of the Rorschach report which related to this. The psychologist prefaced her remarks by saying that these reports are usually not read to the parents because of the difficulty of explaining them so that they will be meaningful. In this case, an exception was being made because this report so paralleled the mother's own statements, that it seemed as though it might be helpful to her to know the extent to which this was true.

The problem of Paul's school difficulties was introduced by asking the mother what she thought caused Paul's present failure. She said that she thought it had to do with the difference between the attitude of the teachers in the lower school and in high school. In the lower school the children were supposed to learn what the teachers taught; nothing beyond that was expected of them. Paul had done well until he had started high school. There the students were encouraged to do original work; they chose their own subjects for compositions; they were supposed to think about what the teacher said and criticize when they didn't agree. Paul seemed to like this at first, but after he had talked his ideas over with his father a few times, and his father had shown him where he was wrong, he started to be nervous when the teacher called on him, and complained that he never could think what to say. It has reached a point where he wants his father to tell him what to write about, and what ideas and criticisms to bring up in class. "It's really his father's ideas, not his, that he's trying to tell about; no wonder he gets flustered when he's asked questions about them."

It was a simple matter to explain the work failure after that. Paul had come to mistrust himself. He only felt confident when he was speaking with *the voice* of his father. But *the mind* remains the mind of Paul. Consequently, even though he may believe that he means what he is saying, he is unable to think the thoughts through by himself. He senses that something happens to change the ideas when he does that. And at this point he loses confidence and becomes confused.

The explanation made sense to Paul's mother. So did the idea that Paul needed to be free from his father's domination before he could do the work which, intellectually, he was capable of doing. The psychologist asked the mother whether she thought the father was taking this active part more for Paul's sake or because this type of relationship was personally satisfying to him. The mother said it was probably a little of both, but she thought that it had to do chiefly with helping Paul. She indicated that, in many ways, these nightly sessions had become burdensome to the father. He had always been a great reader, and now he had no time to read; and there was the radio; and he liked his

game of cards. She sometimes thought he looked a little sad when he came back from the telephone after having refused some friend who had called to suggest a game. Now that she thought of it, she doubted if he enjoyed Paul's dependence. Last summer when Paul was away at camp, he had seemed more relaxed than he had been for a long time, even though summer is his busiest seaon. She continued:

"Perhaps if he realizes that it's for Paul's good that he should stop, he'll go back to his old ways again. And once he gets the idea, I think he'll stick to it. He's like that with everything he does. Puts his whole heart and soul into whatever he believes. He's pretty open-minded, too, in a way. I think he can see this the way you and I do."

INTERVIEW WITH PAUL'S FATHER

Paul's father launched immediately into the business at hand:

"My wife tells me that your tests make Paul out to be a smart boy. Of course I'm not a psychologist, but all I can say is, you'd never think so if you saw his marks."

"What do *you* think about his smartness?" the psychologist asked.

"Well, actually I think the same. The boy always seemed bright to me. But he doesn't seem to have the confidence I did when I was his age. I didn't have anyone to help me, and I didn't need it. But with Paul, it seems like I have to be urging and encouraging him all the time."

"Does he do well after that?" the psychologist asked. A puzzled look came into Paul's father's eyes.

"No," he said, "that's the queer thing about it, and that's why I gave in to my wife when she suggested that I come here and talk it over. Paul really *does* try. And I spend so much time helping him. And still he hasn't succeeded. Can your tests throw any light on that?"

"Well, in a way they do," the psychologist answered. "But not in the clear, specific way that makes it possible to state the answer point blank. What they do is more like giving hints and clues. The best way to follow them is to learn more about what Paul is like in other situations besides school. Then we can probably learn why his school work has suffered."

Paul's father answered, "There's nothing the matter with Paul except for his school work. I'll be glad to tell you about him, if you say so, but I don't think it will get us anywhere. He's almost a perfect boy in all other ways; friendly and considerate and very grown-up for his age. We're almost more like friends than like father and son. We do everything together; even his school work we generally do together. He waits with it 'till I get home—and then as soon as dinner is over, we get at it. I sometimes think *my* father wouldn't believe it possible, that a father and son could be so close."

"You weren't very close to your father?"

"No, my father wasn't interested in that way at all. After dinner he used to read the paper and then go to bed. He was never a person I could turn to. I don't think I ever talked things over with him, and I'm very sure he never helped me with my work. I used to think, 'if I ever have a son—I'll treat him differently. I'll be a good friend of his—someone he can turn to for help and advice.' It's certainly turned out that way."

"Have you and Paul always done the homework together?"

"Only for the last few years. In the lower grades his mother used

to help him. But not nearly so regularly – just occasionally when he came to her. I think that's the mother's job when the child is little. But when he got to high school, I decided to take over."

"Paul must have been very pleased when that happened," the psychologist observed.

"As a matter of fact, he wasn't. At first he used to try to keep me from it. He even said things like, 'Whose homework is this, anyhow?' There often was a fuss when I suggested something that was different from the way he would have done it. I insisted, because I knew my way was right, but Paul wasn't really grateful for quite awhile. He used to say he'd rather fail on his own than have me pass for him."

"How did he come to change his mind?" the psychologist asked.

"A number of things happened," Paul's father explained. "First there was the fact that the scenes made us both so unhappy. I told you how soft-hearted Paul is. And then there was the time when his teacher told Paul she wished he'd do the same kind of careful work in the school study periods that he does when he prepares his work at home.

"But maybe most important was the girl with whom he had a puppy love-affair. I felt she was the wrong sort of girl for him—too sophisticated and too sure of herself. Gradually I got him to see it my way and he gave her up. He became much less argumentative after that. Sometimes I think he's gone to the other extreme; he has become so quiet and reserved, and he seems so unsure of himself."

"Do you think Paul is sometimes sorry he broke off with her?"

"Yes, I do," said Paul's father. "And I'll tell you something else, I'm sometimes sorry I hammered so hard at it. She wasn't a bad sort, really. Just had cockeyed notions, like many kids have about wanting to make their own mistakes and learn in their own way. She thought I was babying Paul too much."

"And what do you think?" the psychologist asked.

"I wonder," answered Paul's father. "Perhaps it's true that I have. He certainly seems to depend on me an awful lot. When I was his age I had been working for two years. I was independent—and when I say independent I mean it. I wouldn't have let my father tell me what to do."

Paul's father looked at the psychologist. "Do you know something," he said, "I've been thinking it over as we've been talking. I think I've made a mistake. Paul will never learn to stand on his own feet, if I keep babying him the way I've been doing. Maybe my father wasn't so wrong after all. At least I turned out not to be a sissy."

"I think you're right," the psychologist said. "In fact, it's just what these tests add up to. Paul needs to be given his head. He may run a little wild at first, until the novelty wears off, but in the end I think he'll find his right gait and keep to it."

Many things were discussed after that: the relationship between Paul's feelings of dependence and his sense of inadequacy; the way this reflected itself in lack of initiative and lack of drive; the concept of academic difficulty as an expression of resistance, when, as in Paul's case, the individual is emotionally prevented from direct expression.

Paul's father brought up the idea of a Prep. school away from

home. "It seems the best way to make me put a stop to it," he said courageously. "I think if I get right at it, we can start him immediately, with a summer school course." But the psychologist raised an objection. "I doubt if anything would really be changed if it came about that way," she said. "It would simply be changing the nature of the domination. The decision to do it would be yours and not his." Again the father agreed with the idea.

"It looks like it's not going to be easy for me to stop," he said, smilingly. "I seem to be more set on dominating than I had realized. Maybe it will take awhile before I learn to lay off. It may be that a few more talks like this would help. I'd like to think more about these things we've talked about."

Paul's father was given the name of a therapist with whom to pursue these ideas further.

"To come back to Paul and preparatory school," his father concluded, "I think he'd like to go, if he isn't forced into it. He has told me a number of times that several of the boys from his class are going. He didn't ask, but I could tell he wished he could go too. I think if you speak to him, he may bring it up himself."

INTERVIEW WITH PAUL

The psychologist started the interview with a reference to the promise she had made at the time of testing to tell Paul the test results.

"In this case it's a pleasant thing to do, since the tests indicate that you have good intelligence," she added.

Paul looked neither surprised nor relieved. He simply said, "You would never think so, if you saw my marks."

"Does that mean that you think the tests are mistaken, or that you are at a loss, if you have good intelligence, as to how to account for your school failure?"

"I guess it's that," said Paul, "not understanding why I am failing. I had always thought of myself as smart enough, and I used to do good work, too, but since I've been in high school I've worked much harder than I ever did before, and I seem to get worse all the time."

"Have you any idea why that should be so?"

"Well, I've thought a lot about it," Paul answered, "but the ideas I got don't sound too sensible."

"What kind of ideas are they?"

"I sometimes think it's because I'm afraid," he said. "I'm afraid to get ideas, or work them out in my way, because my way always seems to turn out wrong."

"Wrong by what standards?" the psychologist asked. Paul thought a few minutes, "My father generally thinks just the opposite," he said. "When I read an essay and then discuss my ideas with him, it ends by my writing a criticism of it, which is just the opposite of the one I started to write."

"Is the assignment to write your ideas or your father's?" Paul reddened, "I've put it a little wrong," he said, "I didn't mean that my father *makes* me do it, I just mean that after we've discussed it, I get to think my original idea was wrong, and that I'd better stick to what my father said."

"And do your own ideas always turn out to be wrong?"

"Well, not exactly," he answered. "Often some of the other boys have the same ideas, but by that time I'm on the other side. I find myself arguing with them and even getting quite excited about it. It almost seems like its important to

me to disapprove their ideas. We've had a great many arguments this year, and, of course, it's set the boys against me. They think I've changed,—they don't like me anymore."

"What would happen if you did not discuss these things with your father?" the psychologist asked.

"Oh, that would be impossible," Paul answered quickly. "He would think I don't value his judgment, and don't want to confide in him."

"Have you always confided in him?"

"No, not always," Paul answered. "When I was little, I was with my mother much more than with my father. He was always very nice; brought presents home for me, and took me to the circus and things like that, but he wasn't important, really. Then one evening, shortly after I had started high school, there was some math problem that I couldn't do. I asked my mother, but she couldn't do it either. Father was there and he said, 'Let me see it, I think I know what's wrong.' That was the beginning of it. I've often thought how different things might have been if I'd only had had the sense not to ask for help. Somehow after that there were more and more times that father helped me, until finally it got to be a habit for us to sit down together every night and do my homework. I fought against it at first, but it was no use; father was so hurt about it, and besides, he was generally right. He's wonderful at math and social studies. He really has lots of ideas about things, and they're the kind of ideas the teacher likes."

"Only they're not *your* ideas," the psychologist interposed. "That is really what I want to talk to you about, Paul, because that's the place we have to start, if we are to find out why you should be failing in spite of good intelligence."

Paul participated eagerly in the discussion that followed. Gradually he began to see why he felt inadequate and inferior. He gave illustrations of the way he had leaned backwards to champion his father at his own expense, and the strain that was being put on his friendships because of this. He told of one instance when this defense of his father's point of view went so far that he knocked down a classmate who ridiculed some statement of Paul's father which he had offered as his own. The father's reputation was actually not involved at all, so far as Paul's friend was concerned.

"What you say makes sense to me," Paul said in summation, "but what is there to do about it? I know my father will never see it that way."

"He *has* seen it that way," the psychologist answered, and told Paul of her talk with his father. "That was swell of him," Paul said. "He really is an awfully nice guy deep down. Not many men of his age would be big enough to see that they had been wrong, would they?"

"No," the psychologist was able to answer truthfully, "not many would."

The idea of preparatory school for the fall was brought up after that and enthusiastically accepted by Paul. "It's just what I've been wanting to do," he said, "but I didn't think it would be possible. I think things will be very different once I get away."

Paul started to the door. But before reaching it he stopped. "I've just thought of something," he said. "I don't have to wait for next fall to have things different, I'm

going to start right away—practicing doing things myself. Then I'll know how to do it when I am away."

The psychologist saw Paul on one other occasion. It was the following December during his Christmas vacation. He came to report on how well things were going both in school and at home.

"Of course, I'm away most of the time," he said, "but it's awfully good to get home for vacations, and Dad and I are planning a hiking trip this summer before I go to college."

"You think you'll go to college then?" the psychologist asked.

"I don't just *think*," Paul answered, "I *know* I'll go to college."

REFERENCE

Wechler, D. 1944. *The Measurement of Adult Intelligence*. Baltimore: The Williams and Wilkins Co.

Vorhaus, P. 1951. *TAT Summary Record Blank*. New York: World Book Co.

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BRIEF REPORTS

National Differences In "World Test" Projection Patterns

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Projective techniques reveal individual personality patterns and predicaments. If applied to groups, they might reveal group patterns resulting from the same psychological needs and pressures which affect the individual. Prevalent projective patterns of various age and clinical groups have been studied in recent years by various authors. In addition to these, it might aid the understanding of national bias to apply projective techniques to its study, using large and carefully selected samples and techniques apt to reveal the particular differences in question.

The present study is in the nature of an exploratory examination of some national differences as revealed by one such projective instrument, the World Test. Although secured for other purposes, the research data of this article were collected under comparable circumstances in five different countries, with a distribution of ages and sub-groups which made the application of statistical methods possible. Dr. Welty Lefever was kind enough to prepare the tables.[1]

The Nature at the Test

The World Test, used in this study, is a projective technique which consists of miniature objects found in the outdoor world: houses, trees, fences, cars, people, domestic and wild animals, and so on. They are made of wood and colorfully painted, and are offered to the child as toys. A minimum of 150 and a maximum of 300 of these objects, called *elements,* are available to the child, assembled in standard distribution in the compartments of an open box. The child is invited to look at all these nice things and to "do something with them." He may use the floor (in some cases the sandbox) to set up his World.

Three things can be done with the World Test material: the subject can *build a structure,* can *dramatize* the material and *act* with it, and he can *tell a story* about the place and events in this locality. Statistical studies so far are based on comparative analysis of the World structures. Stories and actions have been considered only as supplements to the interpretations of the structures.

In a number of group and individual studies (Buhler, Lumry and Carroll) it was established that certain ways of handling this material are symptomatic of certain personality predicaments. At present we know that whether the subject builds a town, a farm, a crossroads, a zoo, a jungle, an amusement park, a graveyard, a scene along the river or on the beaches, a small residential neighborhood or a crowded downtown section, an army camp, a battlefield, an accident or fire area, these many projects can be used to project emotional needs in certain basic patterns.

The symptomatic patterns so far established are classified as:

A. *Aggressiveness.* Aggressiveness can be expressed in a number of different ways, the two main possibilities being: 1) a pattern that

[1] Dr. John Hemphill's statistical survey of the World material in 1942 showed the first possibility of the present study.

utilizes *officially recognized force* in the form of wars, soldiers and police actions; 2) a pattern that makes use of *uncontrolled and combatted violence* in the form of delinquency, accidents, fires, wild animals, etc.

Strangely enough, we find in therapy that individuals in need of experiences of danger and violence are often just as willing to fight for the law as against it, as long as they can fight. Supporting this is the finding that in the anti-military individuals and groups of our sample, other types of violence substitute for soldiery as a projection of aggression.

B. *Emptiness.* The pattern of emptiness is achieved if very few items or kinds of items are used. Previous studies established that the average subject will use more than 50 of the 150 to 300 elements, and more than 5 of the 10 types. (See Buhler, Lumry and Carroll.)

Since young children (5 years and less) and retarded children use significantly less elements than older and mentally normal (average) individuals, emptiness can be merely a result of *inadequacy,* of *lack of imagination and of resourcefulness.*

On the other hand, the *passive resistance* of perfectly capable but antagonistic individuals may be expressed in the same pattern. They *escape* or *withdraw* from the situation in which demands are made of them. This antagonism becomes particularly evident if *no people* are used at all. This symptom is an extreme expression of withdrawal and hostility when it is found in a rich and crowded World.

C. *Enclosures.* Partial or total enclosure is scored if the subject encloses areas normally not enclosed or if he builds fences around the whole structure. Many remarks of subjects confirm that they enclose something needing *protection,* such as children, or domestic animals, or their own home. Enclosures can also be used to *imprison* dangerous elements, wild animals, criminals, or the "bad grown-ups that beat up little children" (this from an 8-year-old boy).

If the whole structure is enclosed, it expresses, then, the projection of the subject's need for complete separation and seclusion from the rest of the world. *In every case, we can interpret enclosures as a sign of active self-protection.*

D. *Disorganization.* There are different degrees to which a World structure may lack a clear plan. Sometimes there is an over-all plan, say, to build a city, but the plan is not carried through in detail. If a city has no streets at all, houses are put up haphazardly, and cars move in all directions, this is called disorganization. The lack of planning may apply only to certain items which are put in improbable places, e.g. bridges or animals or fences occurring without logical explanation. The latter may of course have a special emotional significance. A snake near a schoolhouse, a lion in the middle of the street, or fences all over the place introduce elements of aggression or of defense into the project.

Aggression and defense occur in these structures in a confused manner, indicative of *confusion and helplessness.* Usually this is the projection of a breakdown of ego-organization, of *dissolution.* In our clinical experience, disorganized and empty Worlds are symptomatic of hysteria. However, since young and retarded children make more disorganized Worlds than

those made by the older and mentally normal, this symptom may indicate an intellectually-based helplessness.

E. *Schematism.* Schematic constructions are those in which artificial regularity is imposed in an unrealistic manner. This can appear in different forms. If animals march in rows, if the World consists of rows of identical objects: a row of houses in one place, a row of cars, a row of bicyclists, a row of fences, of boats, and so on, these are unrealistic schematisms. Other schematic arrangements may look more natural but still betray rigidity, like rows of trees along a river or an alternation of houses and trees in great regularity, or very regular fence constructions.

The fact that some individuals live in neighborhoods and communities exhibiting a great deal of this type of regularity has to be taken into consideration. But if it is not a projection of an inner need, there will be signs of freedom to disrupt this order—people, animals, gardens, and so on.

Although schematism may be found in constructions of young and retarded children as an expression of mental immaturity, it is, on the whole, strongly indicative of *rigidity.* It is the projection of that need for *over-organization,* for self-imposed rules which we find in obsessive-compulsive neurotics.

The five main symptoms indicate then the needs for: *active aggression* (legalized or illegal and uncontrolled), *passive resistance* (escape, withdrawal, or inadequacy), *active self-protection* (separation, seclusion), *dissolution* (helplessness, confusion, breakdown of ego-organization), *rigidity* (over-organization, defense by self-imposed rules).

These symptoms are not mutually exclusive. In various constructions they are interrelated and even interchangeable; if a child builds several Worlds he may replace one symptom by another. Hence their interpretation cannot be too strict, in view of the fact that an individual's problem has many aspects and that varying attempts to master the problem can be made by the same person. In general, we should refer to prevalent tendencies rather than exclusive symptoms, with these exceptions: very well adjusted individuals do not show certain signs at all; older children tend to show different symptoms than do younger children.

Population of the Study

Our sample comprises 264 children distributed as shown in Tables I and II. The sample consists of "clinical" cases and school cases. The 189 clinical cases were children tested by this author under similar circumstances in Austria, England, Holland, Norway, and the United States. All were children brought for test purposes to a child guidance clinic in which the author gave them a psychological examination which included the World Test. Thirty of these children happened to be the better adjusted brothers and sisters of the problem children, or were studied under aspects of preventive care. These 30 were called "normals;" the rest comprise 132 "problems" and 27 "retarded" children.

The age and sex distribution of normals, problems, and retarded children of the clinical group are shown in Table I. In our material, problem children (those offering minor or major difficulties to their parents and teachers) represent the

TABLE I—Age and Sex Distribution of Clinical Cases

Ages:	5-6	6-7	7-8	Total I	8-9	9-10	10-11	Total II	11-12	12-15	Total III	Boys	Girls	Grand Total
Normals	4	2	7	13	5	5	3	13	4	....	4	20	10	30
Problems	12	18	12	42	14	19	11	44	21	25	46	86	46	132
Retarded	1	2	3	6	1	7	2	10	2	9	11	6	20	27
Total	17	22	22	61	20	31	16	67	27	34	61	113	76	189

TABLE II—Age and Sex Distribution in Nationalities

Ages:	5-6	6-7	7-8	Total I	8-9	9-10	10-11	Total II	11-12	12-13	13-15	Total III	Grand Total	Boys	Girls
Austrian	....	3	1	4	....	3	1	4	3	3	....	6	14	9	5
Dutch	3	....	3	6	2	4	4	10	2	....	2	4	20	12	8
English	5	8	9	22	10	16	9	35	14	9	14	37	94	59	35
Norwegian	2	7	9	18	3	8	1	12	5	1	2	8	38	23	15
U. S. Clinical	7	4	....	11	5	....	1	6	3	1	2	6	23	10	13
Total Clinical	17	22	22	61	20	31	16	67	27	14	20	61	189	113	76
U. S. Kindergarten, 4 & 5 years	35			35									35	16	19
U. S. (war) 5th & 7th grades							30	30		10		10	40	21	19
Total	52	22	22	96	20	31	46	97	27	24	20	71	264	150	114

TABLE III—"World" Symptoms in Different Nationalities

Symptoms:	Total N	SA* N	SA* %	A N	A %	E N	E %	NP N	NP %	C N	C %	D N	D %	R N	R %	Symptom Total
Prewar Clinical:																
Austria	14	7	50	4	29	4	29	3	21	1	7	6	43	6	43	31
England	95	38	40	15	16	45	47	23	24	37	39	28	29	10	11	196
Holland	20	4	20	1	5	14	70	4	20	5	25	3	15	6	30	37
Norway	37	7	19	6	16	16	43	14	38	9	24	10	27	2	5	64
USA Clinical	23	8	35	11	48	3	13	4	17	5	22	11	48	6	26	48
Totals	189	64		37		82		48		57		58		40		376
US Kinderg'ten	35			15*	43	30	86	15	43	23	66	7	20	4	11	84
US Wartime, school	40	27	68	21	53	8	20	3	8	7	18	10	25	12	30	88

Sign explanation:
SA% = use of soldiers
A% = aggressiveness
E% = emptiness
NP% = no people
C% = Closed World
D% = disorganized World
R% = rigidity

* This figure applies to the combined SA and A signs, as S was not scored separately.

bulk of our cases. The sample includes a United States kindergarten class and a 5th and 7th grade group.[2] The 5th and 7th grade groups were studied during the war and show the effect of the war on the children's constructions.

From previous studies on symptom distribution, the following facts are known (see Buhler, Lumry and Carroll):

1. Problem children show more symptoms in handling World Test material than normal children; retarded children show more than problem children. The ratio of normal:problem:retarded is roughly 1:2:2.5 symptoms per child.

2. If well adjusted (normal) children have emotional problems, their World's show *emptiness* or *closed* signs; they do not show *no people* nor *disorganized* Worlds. In other words, passive resistance (escape) and active self-protection (separation) are the first means of defense. The last to appear under normal circumstances are withdrawal from people and dissolution.

3. Young children show *emptiness* and *closed* signs, but also more *no people* than older children. In other words, when in trouble they become hostile or timid in addition to passive resistance and active self-protection.

4. Older children and problem children show more *row* signs than the other groups; that is, they show the projection of more organized, rigid defenses than the other groups.

5. Retarded children display all symptoms, but significantly more *disorganized* Worlds than the other groups. In other words, their inadequacy results in helplessness and confusion.

6. All groups produce aggression signs, although the normal pre-war children show less aggressiveness than the school children during wartime.

Results Among National Groups

Proceeding to a comparison of national differences, Table III shows the World Test symptom distribution in different nationalities.

Critical ratios on the 1% and on the 5% levels were worked out by Dr. Welty Lefever. The results are summarized in Table IV.

Since human problems are very much the same, at least within the similar conditions of Western Civilization, one would expect to find similar reaction patterns in every nation. Instead we find significant differences in the reaction and projection patterns of our five nationalities which then must be explained.

In any reasoning about the occurrence of such differences, the dynamics of the development of a neurosis have to be considered. The accepted theory is that a neurosis develops out of frustrations and conflicts which arise in connection with the satisfaction of basic needs and in connection with responses to environmental demands.

If for any reason the frustrations and demands encountered in a given group are similar, it might be imagined that prevalent reaction patterns are found. In most countries, traditions play a great role in the way parents handle their children and in the way in which they impose frustrations and demands on them. No one now doubts that authoritarian patterns

[2] The kindergarten sample was obtained with the help of Sister Jean Patrice in St. Paul, Minn., and the 5th and 7th grade groups were studied by Helen Carroll and Elizabeth Derby in Worcester, Mass.

TABLE IV—Critical Ratio Results for National Differences of "World" Symptoms

Symptom	Significance 1% level	Significance 5% level	National Comparisons
		x	Austria versus all other countries.
Use of soldiers	x		U. S. War versus U. S. Clinical, England, Holland, Norway
	x		All other countries versus Holland, Norway.
	x		All other countries versus Holland.
	x		U. S. Kindergarten versus England, Holland, Norway.
Aggressiveness	x		U. S. Clinical versus England, Holland, Norway.
	x		U. S. War versus England, Holland, Norway.
		x	U. S. War against all other groups.
	x		All other countries versus U. S. Clinical.
	x		U. S. Kindergarten versus U. S. Clinical, U. S. War, Austria, England, Norway.
Emptiness	x		England versus U. S. Clinical, U. S. War.
	x		Holland versus Austria, U. S. Clinical, U. S. War.
		x	Holland versus all other countries.
		x	Norway versus U. S. War.
	x		England versus U. S. War.
	x		Norway versus England, U. S. Clinical, U. S. War.
	x		U. S. Kindergarten versus U. S. Clinical, U. S. War.
No people		x	U. S. Kindergarten versus England.
		x	Norway versus Holland.
		x	Norway versus all other countries.
	x		All other countries versus U. S. Clinical, U. S. War.
	x		U. S. Kindergarten versus U. S. Clinical, U. S. War, Austria, England, Holland, Norway.
Closed World		x	England versus U. S. War.
	x		England versus all other countries.
	x		All other countries versus Austria.
Disorg. World		x	U. S. Clinical versus Holland.
	x		All other countries versus Holland.
	x		Austria versus Norway.
	x		U. S. War versus Norway.
		x	U. S. Clinical versus Norway.
Schematic World		x	England versus Norway.
		x	Holland versus Norway.
		x	U. S. War versus England, U. S. Kindergarten.
		x	Austria versus all other countries.

of upbringing are more prevalent in certain groups and countries. Other patterns are less easy to define, e.g., the extent of closeness and demonstrativeness in parent-child relations; the degree of parental ambitions and consequently children's competition; the tolerance of open aggression, of fights; the expected sociability; the expected compatibility or encouragement of individual self-expression.

There are many other imponderable factors, such as the relative importance of school in the child's life and the degree of emphasis on scholastic achievement, compliant behavior, and respect for school authorities. There is also the factor of the impact of different types of entertainment and recreation, the parents' participation in the children's life, their tolerance for various activities, and degrees of social and sexual relationships. There are the different roles of indoor

and outdoor life, the impact of city and country, nature, density of population.

The usual assumption is that all these factors are less important than the satisfaction or frustration of basic needs. Nevertheless, the impact of basic frustrations may be modified by secondary factors. To be specific, an American and a German child, each growing up in an authoritarian family, experience a different secondary influence in their schools, which in one case eases the situation and in the other heightens the child's feeling of being hemmed in by rigid rules.

The many possible patterns of primary and secondary factors may explain the differing structures of group dynamics which we find, for example: *Aggressiveness* (expressed by toy soldiers and wild animals) discriminates two groups of countries: Holland and Norway, the unaggressive groups, which never used soldiers in their Worlds, as compared with the other countries who project aggression by using many soldiers.

The United States group used more symbols for military aggression during the war than before it, and more of such symbols than any prewar group except the Austrians. The prewar United States children used more non-military symbols for aggression than any national group except the Austrians.

The United States groups above kindergarten age project a basic conflict: *the conflict between competitive aggressiveness and cooperative sociability.* The United States children have nearly the highest score for aggression and at the same time the lowest score for absence of people and for empty Worlds; that is, their Worlds are extremely populated, rich, and full of life (the American kindergarteners in common with other young children, tend to make small and less populated Worlds).

The conflict between aggression and sociability is accompanied in pre-war United States cases by some tendency to create disorganized Worlds, but the United States war group shows a significant tendency toward *schematism.* It may be that the war had an organizing effect on a group confused by conflicting tendencies. During the war, fighting was necessary, hence the conflict was temporarily less disturbing.

Turning to the other countries, we find the *Austrian* children's group to be much more aggressive and more schematic than any other group. This may seem strange to those who think of Austrians as a non-aggressive, kind-hearted people, forced by the Germans to become a satellite. It is true that the Austrian Worlds show an undefended openness and lack of inner coherence; they have the smallest number of closed structures. They also show some disorganization which is in conflict with their schematism. This very thing is apparently their problem. *Because of lack of defenses, inner coherence, or order* the Austrian group becomes an easy prey to the infiltration from Germany of strongly aggressive and schematically rigid principles.

The *English* children's group, in partial contrast to the Austrian pattern, combines aggression with the largest number of closed Worlds. Enclosure, representing *strong inner coherence, strong self-defense and closing-off from others ("my house, my castle") in conjunction with aggressive tendencies* seem to be an adequate expression of the English pattern.

The least aggressive is the *Dutch* children's group. They tend to make small Worlds with schematic structures. Their defense consists of *orderliness and schematism supported by a certain lack of imagination and a tendency toward withdrawal rather than aggression.*

The *Norwegian* children's group produces an unpopulated, unaggressive and rather empty World. The wide, lonely countryside of Norway is reproduced in many test structures in which scattered houses, people, and other elements are spread over a wide area. There is also some lack of organization. The open unpopulated spaces seem to point to a *defenseless, unaggressive, and rather withdrawing, unorganized, quite individualistic response to life.*

Because these results suggest many avenues of research, care must be taken to control possible variables. Previous studies (Buhler Lumry and Carroll) showed differences between younger and older age groups. The Norwegian group, with a high percentage of young children, produces many empty Worlds which are characteristic of young children. But on the other hand they do not produce the many closed Worlds which are also typical of younger children. Furthermore, the United States group, with the same high percentage of young children, has almost no empty Worlds, and a large number of very crowded ones.

The Dutch group produces many rigidly-neat Worlds, a pattern common to the oldest group, in spite of the fact that their group has only a small percentage in that age bracket.

Sex as a factor can also be eliminated. The United States group has more girls, but does not show the tendency to closed Worlds which prevails with girls.

Well-adjusted, maladjusted, and mentally-retarded children have different sign patterns. But the five countries have comparable distribution of clinical types, precluding the assumption that different types of cases may simulate national differences.

Inspection of Table V indicates that the representation of the clinical groups is about equal in the five countries.

Some Comparative World Test *Findings*

The interpretation of these results is still tentative. A more detailed analysis of a few cases is perhaps the most useful way to clarify the results.

The American *Susie,* 4 years 11 months old, and the Norwegian *Ingrid,* exactly 5, come from a comparable background and are two very shy little girls. Both are afraid to meet strangers, but Ingrid also refuses to meet new children, while Susie is only afraid of adults. Both play well with the neighborhood children they know. Each girl has another younger sibling, Susie a little brother of 1½ years, Ingrid a sister of 2½ years. Both seem to adore these babies and to take a motherly interest in them.

Neither of the girls was considered a serious problem by her parents. Susie's

Table V—Clinical Distribution and Countries

Countries	Well-Adjusted		Maladjusted		Mentally Retarded		Total
United States	4	17%	16	70%	3	9%	23
Austria	2	14%	10	71%	2	14%	14
England	11	12%	68	72%	15	16%	94
Holland	4	20%	14	70%	2	10%	20
Norway	9	24%	24	63%	5	13%	38
Total	30		132		27		189

parents wanted advice on how to handle her opposition; she seemed to say "no" more often than necessary. They did not consider her "bashfulness" a problem, felt she would outgrow it, and pointed out that Susie had made an excellent adjustment in nursery school. Ingrid's parents were worried that Ingrid would have difficulties in kindergarten; also they felt she was "not happy enough," seemed too worried over things.

An important environmental difference is that there was no nursery school in Oslo at that time and that there was no chance to accustom Ingrid on the nursery school level to meeting new children and adults.

Susie's and Ingrid's parents were comparable young couples. Both fathers were young professors; the families had a high cultural level; both mothers informed themselves in child psychology, both fathers were kind, cooperative, and interested in their children. In fact, the fathers joined in an unusual number of activities with their children, and helped in the household. Susie's father took her on rides, gardened with her, taught her things. Ingrid's father read to her and drew pictures with her.

Another important environmental difference is that Ingrid's life is largely indoors. Susie is outdoors all day and there is a great deal of freedom of movement in the connecting neighborhood gardens. Thus Susie develops so well muscularly that she begins to climb trees and is not afraid of any physical hindrance. Ingrid does not get any similar exercise, so she does not get Susie's feeling of motor skill and self-assurance in movement, although tests show Ingrid to be a well-coordinated child.

Both girls are far above their age level in intelligence; they solve most of the 6-year intelligence tests items (Stanford-Binet). But while Susie has a healthy pride in her achievements, tries to read letters and show what she can do, Ingrid is overwhelmed by inferiority feelings about her objectively adequate manual activities. As she draws, she sighs heavily and says she does not draw half as well as her father; Susie never actually compares herself with her parents, but points out how wonderful they are and what they can do.

Susie spends much more time with children, Ingrid much more time with the grownups at home. Yet shyness for both children has its origin in their perfectionism. They are deeply impressed by their wonderful parents, try to please them and to live up to the high standards of their homes. These children are never punished, but they show a certain compulsiveness in their behavior. Both mothers are somewhat cool and their efforts to be affectionate and close to their children are somewhat too conscious. Thus both children feel a little alone and both clamor for their father whenever he is around.

But in this slightly compulsive pattern, the American child has considerably more opportunity for free self-expression than the Norwegian child. Susie's free outdoor life, her free and self-assured movements, the possibility of expressing opposite opinions, her happy integration into nursery school life are all helpful secondary factors. Ingrid, who misses all this, must develop a much more repressed and subdued pattern.

Comparing World constructions for Susie and Ingrid, we find the following differences: Susie produces a big, crowded World (96 items). She protects her World by fencing the major portion. In this wide protected area there is great confusion. Animals and people are scattered all over. In a separate village there are mothers and their children. But the rest of the space contains men and women placed between wild and domestic animals, and public buildings such as the railroad station, the jail, and the church.

Asked what all these people and animals do, she assures us "all animals and people are good; nobody goes to jail." We interpret this as her awareness and free demonstration of dangerous and aggressive elements in the world, from which she protects herself as best she can by self-reassurance, by putting the children with their mothers, and by a fence.

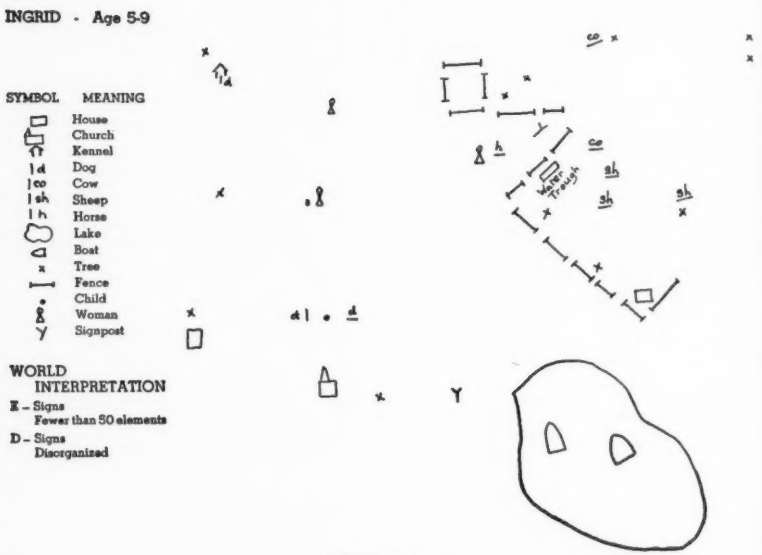

FIGURE 1

Ingrid's World (Figure 1) is quite different. It is a World with comparatively few (52) elements spread over a wide area. Two houses and a church, a few people, among them a mother and child and some people with dogs, are spaced far apart. There is a park with a few animals, a harbor with boats. Some trees are placed here and there.

It is a very lonely World in which people, animals, and other objects appear in isolated unorganized units. There is no aggressive element present.

We interpret this World as an expression of loneliness and confusion. There seems to be no awareness of danger, but instead a feeling of forlorness and non-belonging.

The American child is aggressive and sociable, the Norwegian non-aggressive and unsocial. Thus the different national patterns are projected despite the fact that both these shy children have many environmental factors in common.

A second comparison is of two eight-year-old boys who stutter.

Both Emery, the American, and Lars, the Norwegian, are over-disciplined. Their fathers are harsh and strict; their mothers are rather ineffectual and dominated by their husbands. Both boys are afraid of their fathers and feel strong resentment toward them. Both stutter more around the father than in any other situation, and their stuttering probably has an emotional basis primarily.

Both boys have developed defiant antisocial attitudes and do not get along with other children. But again, the secondary factors of school and neighborhood environment modify the basic conditions of their lives. The tolerance which Emery experiences in his school and the free roaming with neighborhood children provide a different background for him than the restricted freedom that Lars had in school and neighborhood.

Emery is good in baseball and receives recognition which partly compensates for his inferiority feelings because of his stuttering. Lars has no such equivalent.

Lars is consequently more hostile and more lonely than Emery. He builds a World completely without people. He fences it off from the outside and he puts only cars and horses into his ranch, the horses as his personal friends, the cars because he likes them. His is a small, limited and reduced World; it is antisocial, but unaggressive.

The opposite of this withdrawal is true of Emery's World construction. It covers a wide area, is crowded with houses, people, cars, animals, trees, everything available. It is aggressive, full of soldiers and war implements, and there is fighting, people die, drown, or are buried in the cemetery, while others go about peaceful business. It is a confused World; at the same time it is aggressive and sociable, full of life, action, and conflicting, strongly-expressed emotions.

The following comparison of five children is interesting. They have comparable problems in very different structures and content.

Ruth, the American girl, aged 6; Lilla, the Norwegian girl, also 6; Jan, the Dutch boy, 7; John, the English boy, 9; and Renate, the Austrian girl, 9, have a certain similarity of environmental and dynamic pattern. They would be called "spoiled" children to the extent that they are children who "get things" and who usually get their own way. Their families are well-to-do and provide many toys, pleasures and spacious playgrounds. Their mothers have many social interests and duties and these children spend much time with governesses or sitters. All these children suffer from lack of closeness to their mothers. Ruth and Lilla have affectionate, spoiling fathers; the parents of the others are divorced. Ruth and Lilla's parents do not get along too well. The parents' disagreements affect both these children.

In the conflicting dynamic pattern of too much pleasure on the one hand, together with emotional frustrations on the other, these children have developed attitudes of disobedience and defiance, of stubbornness, selfishness, and inability to get along with other children. Ruth, Lilla and Renate are "only" children; Jan and John have little sisters whom they ignore.

Again, secondary environmental factors supplement the basic dynamic structure with very different influences. Ruth lives in a neighborhood with many children who disapprove of her boastful and domineering behavior. Ruth gets into many fights, even fist-fights, in which being a very strong little girl she is often victorious. Many children don't want to have anything to do with her and her mother often bribes them into coming into their garden.

Ruth paints green lawns, fenced in the middle, with a little girl standing alone on one side. In her painting she projects her loneliness and her feeling of being fenced off from the others. Her World construction is a projection of her hostility and confusion. She builds a town with a rather confused arrangement of streets on which some lions are roaming in search of people. There is a lake and a snake swims toward a boat bearing a mother and child.

Lilla meets with similar disapproval among her playmates. But as there are not many neighborhood contacts with other children, her unhappy experiences usually happen in school, while at home she is protected if lonely. Since her mother is gone a great deal, Lilla spends much time playing alone at home, with the maid in charge.

Her World construction projects her protected loneliness; it is a small World without people. She builds a fenced-in meadow with cattle, and two lakes with boats. Like many lonely children, she escapes to animals as her companions.

Renate and John also make constructions with fences. But the difference is that Lilla's is a small, withdrawn World of domestic animals who are fenced in a pasture for their protection, while the fences set up by Renate and John are without purpose.

Renate builds the Danube river and lines it with rows of fences and trees. Spanning the river is a bridge over which soldiers march, a completely improbable sight in peace-time Vienna. When asked, in a "testing the limits" procedure if that was all she cared to make, she added another row of trees and fences on each side of the Danube.

Renate is nearly ostracized by the children of her group. Neither school nor home is able to alleviate this situation. In fact in all five cases the schools are entirely ineffectual. Renate feels rejected by everyone and has developed a hostile and rigid attitude toward the whole world. John, too, is anti-social and rigid, but less aggressive and more aloof. In his London private school, he behaves in a cool, detached manner and is lonely but not actually frightened of his peers. His defiance is most directed against adults, particularly his mother at home. He misses his father and makes his mother responsible for this loss. His mother is detached and cool and does not know how to win back this estranged child. John knows that next year he will go to boarding school, as many English children do, and he already feels independent and on his own.

John's Worlds are all elaborate fence constructions (see Figure 2). He makes several of them, racetracks, parks, country roads, all completely fenced in, complicated winding road constructions with very little or no human life. They are impersonal, self-reliant, closed off.

The Dutch boy Jan is a lonely child, also, but in another structural pattern.

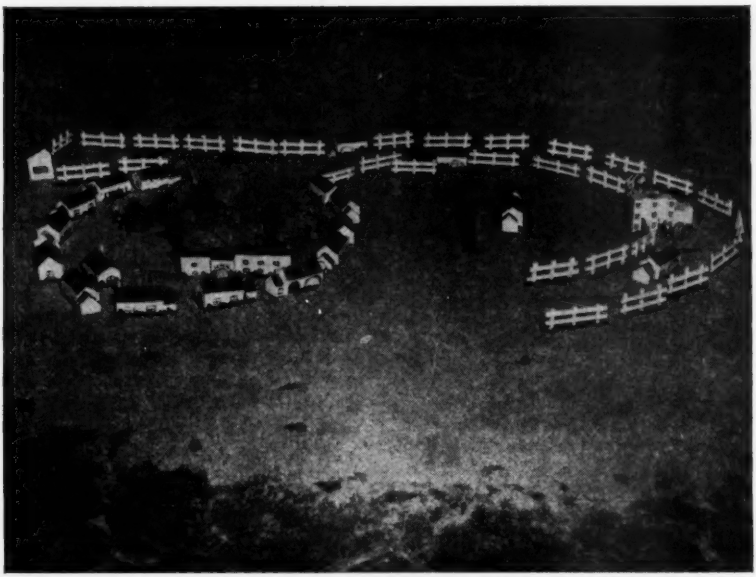

FIGURE 2

He lives on a large country estate near a small Dutch town. While he goes to school in town, he has little contact otherwise with children except for those who come as guests to play in his large garden. His life is very orderly; it is as neat as the little town he visits every morning. If there is lack of interaction, there is no hostility in his outside contacts. At home he is well supervised, well taken care of, although emotionally upset over his father's absence and lonely for his often absent mother.

His World is a neat little Dutch town, orderly in arrangement, sociable, but too small, too orderly, lacking in life and freedom of expression.

These five anti-social children express their common problems in World constructions which in general conform to their national patterns.

Ruth, the American, is aggressive; Lilla, the Norwegian, is withdrawn and unorganized; Dutch Jan is withdrawn and well-ordered; John, the English boy, is aggressive and closed off; Renate is very aggressive and rigid, however without the confusion or open lack of defense typical of Austrian Worlds. *It should be stressed that any type of World construction can be found in any national group. It is the significant number of similar constructions which are interesting and call for further study.*

Summary and Conclusions

The World Test was given to children who were members of five national groups. Analysis of their constructions showed national tendencies to react to emotional problems with defense patterns as follows:

Americans: competitive aggressiveness in conflict with cooperative sociability.

Austrians: Schematized aggressiveness in conflict with confused, open defenselessness.

English: Inner coherence of aggressiveness in conjunction with seclusive closing off.

Dutch: Withdrawal organized in strict, somewhat unimaginative order.

Norwegian: Withdrawal in an open, defenseless and unorganized individualistic pattern.

A few individual cases were used to demonstrate the findings of the group study. Many questions that arise must await a better controlled and more extensive study; for instance, how parental attitude patterns differ in various national and social sub-groups; how children's reaction patterns vary under different circumstances. The consistency of the World Test results and their harmony with common-sense observations encourage further related research.

REFERENCE

Buhler, C., Lumry, G. K. and Carroll, H. 1951. World Test Standardization Studies. *Child Care. Monog., J. of Chi. Psychtry., Vol. 2,* 2-8.

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A Normative Study of Rorschach Responses of Eight Year Old Children [1]

RAE CARLSON

Although the Rorschach test has been used in clinical practice with children for a number of years, this use has been seriously handicapped by the lack of adequate norms. The present investigation is designed to set up tentative norms for eight year old children.

A review of the literature reveals that the majority of studies in this area have for varying reasons failed to meet the need for widely applicable norms. As noted in Table I, the data have in most instances been obtained from highly selected groups with regard to intelligence and socio-economic status, and many of the studies are based on very small numbers of children at each age level. Certain recent studies (Ledwith, 1948; McFate and Orr, 1949; and Ranzoni, et al., 1949) have obtained data from larger groups based on improved sampling methods and have employed more appropriate statistical evaluation of results. In establishing normative materials with which to compare clinical populations, data on a large number of children over a wide age range must be accumulated.

PROCEDURE

Population

The subjects of this investigation were eight-year-old white children in the third grade of the Seattle Public Schools. The following criteria were used to obtain the population from which the sample was drawn:

a. *Socio-economic status.* Subjects came from ten elementary schools located in different sections of Seattle. Of the seven socio-economic zones identified in Schmid's ecological study of Seattle (Schmid, 1944), two schools were chosen from each of the zones except 2 and 6 — the zones next to the extremes. This gives a fairly adequate representation of the actual socio-economic distribution in the city.

b. *Age.* Children were selected from the third graders whose chronological ages at the time of the study were between eight years and eight years, eleven months.

c. *Intelligence.* Scores on the Otis group intelligence test, which was given six months prior to the administration of the Rorschach, were used as a rough measure for determining the middle range of intelligence. Using percentile norms based upon the entire Seattle population of third graders, the middle 68 per cent ($\pm$ 1 S.D.) was selected for each of the ten schools.

d. *Principals' evaluations.* A standardized request was made of the school principals to select from the list of eligible subjects any children whom they felt, from their experience, had more serious personality problems. About six per cent of the group was excluded on this basis.

[1] The writer wishes to express her appreciation to Dr. Charles R. Strether who sponsored this research as a M.S. thesis at the University of Washington.

TABLE I—Comparison of Normative Populations Used by Various Investigators

Investigator	*Age*	*N*	*IQ*	*Socio-Economic Status*
Klopfer & Margulies	2	17	Superior	High
Kay & Vorhaus Vorhaus	2	13	Superior	High
Klopfer & Margulies	3	46	Superior	High
Kay & Vorhaus Vorhaus	3	37	Superior	High
Ford	3	25	124	High
Swift	3 — 6	82	125	High
Klopfer & Margulies	4	67	Superior	High
Kay & Vorhaus Vorhaus	4	41	Superior	High
Ford	4	27	124	High
Klopfer & Margulies	5	52	Superior	High
Kay & Vorhaus Vorhaus	5	26	Superior	High
Ford	5	25	124	High
Stavrianos	5 — 7	40	Average	Average
Klopfer & Margulies	6	23	Superior	High
Kay & Vorhaus Vorhaus	6	21	Superior	High
Ford	6	23	124	High
Hertz & Ebert	6	242	117	.....
Paulsen	6	82	98	Average
Ledwith	6	160	106	Average
Ford	7	23	124	High
Gair	7	29	146	High
Stavrianos	7 — 9	51	Average	Average
Carlson	8	100	Average	Average
Hertz & Ebert	8	208	124	.....
Kerr	7 — 14	365	.....	.....
McFate & Orr Ranzoni, Grant & Ives	11	111	Average	Average
Hertz	12	92	.....	.....
McFate & Orr Ranzoni, Grant & Ives	12	83	Average	Average
McFate & Orr Ranzoni, Grant & Ives	13	122	Average	Average
McFate & Orr Ranzoni, Grant & Ives	14	60	Average	Average
Hertz	15	92	.....	.....
McFate & Orr Ranzoni, Grant & Ives	15	106	Average	Average
Hertz	12 — 16	300	107	.....
McFate & Orr Ranzoni, Grant & Ives	16	46	Average	Average
McFate & Orr Ranzoni, Grant & Ives	18	145	Average	Average

e. *School grades.* A small number of children with consistently low school marks was eliminated since this indicated a marked discrepancy between the child's ability and his performance, according to the basis of grading in Seattle schools.

Ten boys and ten girls were selected at random from the children meeting these criteria in the two schools of each socio-economic zone. Thus the group does not constitute a strictly representative sample of the population but is stratified with equal representation of the five socio-economic levels. This design was used to facilitate analysis of the data for a projected study of socio-economic differences. Subsequent analysis indicated no significant differences between socio-economic groups. The final sample consisted of 50 boys and 50 girls with mean ages of 8-10 and 8-8, and median Otis raw scores of 54 and 55.5 respectively.

Test Procedure

The Rorschach test was administered by the writer over a period of two months in the Spring of 1949. The test was administered and scored according to the method established by Klopfer and Kelley (1942.) The distinction which Klopfer makes between main and additional responses and the criteria for their determination stated in Klopfer's text were followed. The following modifications of the standard procedure were used in this study: (a) children who gave only one response to a card were encouraged to produce more responses on the first two cards; and (b) the testing-the-limits phase was omitted. This was done to insure that the responses were not influenced by communication between children outside of the test situation. Since the purpose was the collection of normative data for the group rather than individual personality description, the lack of testing-limits data did not appear too serious a loss.

In order to increase inter-test scoring reliability, the records were scored at one time after all the tests had been administered. Reliability of scoring was checked by having a random sample of 50 responses independently scored by an experienced examiner. The per cent of agreement was .96 for location, .94 for determinant, and .94 for content scoring.

Method of Data Analysis

The percentage frequencies of main responses were computed for locations, determinants, content and populars for individual records. Means and standard deviations were then computed for the group. Statistics based upon frequencies were not considered meaningful because of the very wide range of total responses (5 to 83) given by the subjects. The range and per cent of persons responding were also determined for each scoring category.

The differences between mean percentages for boys and girls were tested for significance by using the *t* statistic. Though the assumption of normal distribution is not met by our data, studies have shown that this discrepancy does not seriously limit the meaningfulness of this statistic.

Results

The responses of the 100 eight-year-old children of this sample were analyzed for location, determinants, content and number of popular responses. The data presented in Tables II, IV, and VI

TABLE II—Mean Percentage of Responses for the Main Location Categories

	Category	Mean	S.D.	Range	Pct. of Subjects Responding
Boys	W	35.62	20.3	4.8 — 88.9	100
	D	50.44	18.6	0 — 88.9	96
	d	7.02	10.3	0 — 45.5	48
	Dd	5.92	6.5	0 — 33.3	58
	S	1.01	2.0	0 — 8.3	20
Girls	W	36.14	21.1	7.2 — 82.4	100
	D	52.16	18.2	11.7 — 80.0	100
	d	5.63	7.5	0 — 24.4	40
	Dd	5.36	10.1	0 — 60.0	42
	S	0.70	2.0	0 — 10.8	14
Total	W	35.88	20.5	4.8 — 88.9	100
	D	51.30	18.2	0 — 88.9	98
	d	6.33	8.9	0 — 45.5	44
	Dd	5.64	8.4	0 — 60.0	50
	S	0.86	2.1	0 — 10.8	17

TABLE III—Percentage of Responses for the Main Location Categories Obtained by Various Investigators

Investigator	Age	N	IQ	W%	D%	d%	Dd%	S%
Stavrianos	5 to 7	20B 20G	Average Average	61 53	35 36	1.5 5.5	(.....2.....) (.....6.....)	
*Hertz & Ebert	6	242	117	41	39	(.....17.....)		2
Ledwith	6	160	106	53	41	(.....6.....)		
*Ford	6	23	124	25	61	....	(.... 14.3 ....)	
*Gair	7	29	146	51	43	4.6	2	1
*Ford	7	23	124	23	62	....	(.... 15.3 ....)	
Stavrianos	7 to 9	27B 24G	Average Average	51 44	38 49	4.5 4.5	(..... 5.5.....) (..... 3.0.....)	
Carlson	8	100	Average	36	51	6.3	5.6	0.9
*Hertz & Ebert	8	208	124	27	52	(.....17.....)		4
Stavrianos	9 to 11	20B 20G	Average Average	39 39	48 53	4 6	(.....8.....) (.....2.....)	
Hertz	12	92	.....	29	51	....	13	5 Mdn
Hertz	15	92	.....	25	56	....	14	4 Mdn

* Indicates studies based on populations not comparable to the present sample.

are given in terms of percentage of the total main responses falling in each of the scoring categories. Only those sex differences having a *t* value significant at the five per cent level or above are reported.

Although most of the previous studies are not directly comparable to this investigation in terms of the population studied, procedures for administration or scoring, or manner of presenting data, it may be of interest to bring together the available Rorschach material on children of school age. These data are presented in Tables III, V, and VII. It is felt that any interpretation of this material in terms of developmental trends is open to serious question because of the diverse populations and procedures employed and because verification of these results in all age ranges is essential. The generalizations offered are therefore merely suggestive.

Total Number of Responses (R)

The subjects of this study gave a total of 2013 responses to the ten Rorschach cards. The range of responses is from 5 to 83 with a mean of 20.13 and a standard deviation of 12.2. Rejection of one or more of the ten cards occurred in twenty-seven per cent of the records. This frequency of rejections greatly exceeds the number reported by other investigators and contradicts the usual expectation that rejections disappear after the preschool period (Ford, 1946 and Klopfer & Margulies, 1941.)

Location Categories—Manner of Approach

The distribution of location responses is shown in Table II. The area most frequently chosen by these subjects is the large detail (D) which was given by nearly all of the children. The next highest in frequency is the whole response (W) with all children giving at least one W. Twenty-two per cent of the children gave space responses, though the mean percentage frequency of S is less than one. The *t* values of the difference between means for boys and girls indicated no significant sex differences in location responses.

By inspection of Table III comparing these results with other studies one finds that for the age groups investigated the W per cent tends to decrease with increasing age, although this finding is sharply reversed by Ford's six and seven-year-olds. This discrepancy may be due to the superior intellectual level of Ford's subjects. Similarly the D per cent appears to increase from six through fifteen years, though this again is contradicted by Ford's results. The varying criteria used for scoring d, Dd, and S responses by the different investigators, as well as the differences between their populations, limit the value of any generalizations about these factors. The W per cent of thirty-six for the present sample slightly exceeds Klopfer's adult norms while the frequencies of D, d, Dd, and S responses fall within the average range for adults.

Determinants

The distribution of determinants is indicated in Table IV and comparisons with other studies are shown in Table V.

Movement Responses. The children of the present sample gave an average of 6.84 per cent human movement (M) responses. Animal movement (FM) comprised 15.15 per cent and inanimate movement (m) 1.23 per cent of the total R. No significant sex differences were found. Comparison with other studies suggests that the M per cent shows a tendency to increase with age. However, Ledwith's group of six-year-olds, which is most nearly comparable to this sample, gives a mean of eight per cent M. The per cent of children giving M responses (65 per cent) approximates the 62 per cent of Ledwith's group who saw human movement. The percentage of FM responses consistently exceeds the M per cent throughout the age groups in the studies summarized in Table V. The frequency of animal movement appears to vary somewhat between the ages of six and eleven with no marked trends evident. Inanimate movement responses were given by children in all age groups except Stavrianos' five and six-year-olds, although the m per cent does not exceed two per cent in any of these studies.

Shading Responses. The shading and achromatic color responses of this group include six scoring cate-

TABLE IV—Mean Percentage of Responses for the Main Determinant Categories

	Category	*Mean*	*S.D.*	*Range*	*Pct. of Subjects Responding*
Boys	M	6.34	6.1	0 – 23.5	64
	FM	14.57	11.5	0 – 53.8	88
	m	1.74	3.7	0 – 20.0	26
	k	0.34	1.4	0 – 9.5	4
	K	0.07	0.4	0 – 3.6	2
	FK	1.25	3.2	0 – 17.6	18
	F	61.66	16.5	23.1 – 100.0	100
	Fc	3.98	5.7	0 – 28.6	52
	cF	0.06	0.4	0 – 2.8	2
	C′	1.58	3.3	0 – 14.3	24
	FC	3.71	4.5	0 – 18.2	50
	CF	4.68	5.4	0 – 25.0	56
	C	0.00	0.0	0 – 0	0
Girls	M	7.34	7.6	0 – 26.7	66
	FM	15.73	12.0	0 – 41.7	80
	m	0.73	2.0	0 – 10.0	12
	k	0.68	2.8	0 – 19.2	8
	K	0.75	2.2	0 – 11.1	14
	FK	0.22	1.0	0 – 4.5	6
	F	59.58	16.2	25.0 – 87.5	100
	Fc	3.41	5.0	0 – 21.1	42
	cF	0.00	0.0	0 – 0	0
	C′	1.47	3.5	0 – 16.7	18
	FC	6.05	7.0	0 – 33.3	58
	CF	4.03	5.3	0 – 20.0	42
	C	0.00	0.0	0 – 0	0
Total	M	6.84	6.8	0 – 26.7	65
	FM	15.15	11.7	0 – 53.8	84
	m	1.23	3.0	0 – 20.0	19
	k	0.51	2.3	0 – 19.2	6
	K	0.41	1.6	0 – 11.1	8
	FK	0.74	2.3	0 – 17.6	12
	F	60.62	16.2	23.1 – 100.0	100
	Fc	3.70	5.3	0 – 28.6	47
	cF	0.02	0.3	0 – 2.8	1
	C′	1.53	3.4	0 – 16.7	21
	FC	4.88	5.8	0 – 33.3	54
	CF	4.35	5.3	0 – 25.0	49
	C	0.00	0.0	0 – 0	0

gories. Five per cent of the children gave k responses. K responses were given by two per cent of the boys and by fourteen per cent of the girls. The difference between the means (.07 per cent and .75 per cent respectively) is significant at the five per cent level with a *t* value of 2.174. The .74 per cent FK responses were given by eighteen per cent of the boys (M = 1.25 per cent) and six per cent of the girls (M = .22 per cent). The *t* of 2.257 indicates a sex difference significant at the five per cent level. Forty-five per cent of the subjects gave the 3.7 per cent Fc responses, while only one boy responded to undifferentiated texture (cF). Achromatic color (C′) was given by one-fifth of the group. Comparisons with other age groups cannot be made for shading responses, as they were not reported in most of the previous studies.

Form Responses. Accuracy of

TABLE V—Percentage of Responses for the Main Determinant Categories Obtained by Various Investigators

Investigator	*Age*	*N*	*IQ*	*M%*	*FM%*	*m%*	*k%*	*K%*	*FK%*	*F%*	*Fc%*	*C'%*	*FC%*	*CF%*	*C%*
Stavrianos	5 to 7	20B	Ave	0	28	0	....	....	....	51	....	....	8	9	3
		20G	Ave	5	27	0	....	....	....	43	....	....	7	3	5
•Ford	6	23	124	(.....	14	.....)	....	....	....	73	....	....	(.....	9	.....)
Ledwith	6	160	106	8	19	1	0	(.....	4	.....)	47	1	4	6	5	5
•Ford	7	23	124	(.....	17	.....)	....	....	....	74	....	....	(.....	7	.....)
Stavrianos	7 to 9	27B	Ave	5	27.5	0.5	....	....	....	48.5	....	....	7.5	5	0.5
		24G	Ave	6.5	21	1.5	....	....	....	46	....	....	6.5	4	4.5
Carlson	8	100	Ave	6.8	15.2	1.2	0.5	0.4	0.7	60.6	3.7	1.5	4.9	4.4	0
Stavrianos	9 to 11	20G	Ave	7	21	2	....	....	....	44	....	....	5	3	2
		20G	Ave	13	24	2	....	....	....	46	....	....	8	4	0

• Indicates studies based on populations not comparable to the present sample.

form was not scored for the responses of this group, as it was felt that form-level rating for children's responses should be based upon a wider knowledge of what may be expected at various age levels. F responses were given by all subjects of this sample. The mean frequency of form responses was 60.62 per cent with a range of 23 per cent to 100 per cent F. This appears to be considerably greater than the frequencies reported for other age groups of comparable studies where the F per cent constitutes slightly less than half of the total responses.

Color Responses. The children in this study gave a mean of 4.88 per cent FC with 54 per cent of the group using this response. Girls gave significantly more FC than the boys (M = 6.05 per cent and 3.71 per cent respectively); the t of 1.99 is significant at the five per cent level. About one-half of the group produced CF responses which comprise 4.35 per cent of the R. No C responses were given by these eight-year-olds.

Apparently the children of this study have little in common in their use of color with the groups reported by other investigators. The mean of 4.9 per cent FC is lower than that of younger age groups shown in Table V, in contrast to the usual expectation of increasing FC with maturity. The CF response is more nearly in accord with other studies, although no clear age trends are evident here. The absence of pure C is similar to the results with Stavrianos' older children.

Content Categories

The content of the responses of this group include sixteen scoring categories. The distribution of major content categories is shown

TABLE VI—Mean Percentage of Responses for the Main Content Categories

	Category	Mean	S.D.	Range	Pct. of Subjects Responding
Boys	H	9.89	9.2	0 — 42.9	74
	Hd	4.52	6.2	0 — 25.0	52
	A	43.51	15.3	16.7 — 87.5	100
	Ad	12.53	9.6	0 — 48.5	76
	Aobj	1.67	3.0	0 — 13.6	28
	At	3.91	7.7	0 — 47.1	38
	Obj	9.29	5.8	0 — 33.3	80
Girls	H	9.56	9.3	0 — 33.3	68
	Hd	3.35	5.1	0 — 27.3	44
	A	49.81	18.6	11.1 — 87.5	100
	Ad	9.28	11.2	0 — 46.7	58
	Aobj	1.31	2.8	0 — 12.5	22
	At	2.34	4.9	0 — 20.0	26
	Obj	9.29	8.4	0 — 40.0	68
Total	H	9.72	9.1	0 — 42.9	71
	Hd	3.94	5.6	0 — 27.3	48
	A	46.66	16.9	11.1 — 87.5	100
	Ad	10.90	10.3	0 — 48.5	67
	Aobj	1.49	2.8	0 — 13.6	25
	At	3.12	6.4	0 — 47.1	32
	Obj	9.29	7.2	0 — 40.0	74

TABLE VII—Percentage of Responses for the Main Content Categories Obtained by Various Investigators

Investigator	Age	N	IQ	H%	Hd%	A%	Ad%	Aobj%
Stavianos	5 to 7	20B 20G	Ave Ave	2 7	0.5 6	56 44	3 6	0 0
*Ford	6	23	124	(.....13.2.....)		(.....54.1.....)		....
Ledwith	6	160	106	(.....15 .....)		(.....50 .....)		....
*Ford	7	23	124	(.....16.8.....)		(.....53 .....)		....
Stavrianos	7 to 9	27B 24G	Ave Ave	6 6	7 5	45 41.5	6 6	0.5 2
Carlson	8	100	Ave	9.7	3.9	46.7	10.9	1.5
Stavrianos	9 to 11	20B 20G	Ave Ave	11 12	5 5	47 48	8 10	5 2

* Indicates studies based on populations not comparable to the present sample.

in Table VI and comparisons with other school age groups are given in Table VII.

Animal content is most frequently given by these children. All of the subjects gave from 11 per cent to 88 per cent A responses with a mean of 46.66 per cent. Animal details (10.9 per cent) are next in frequency. Human beings (H) comprised 9.72 per cent of the total R, while human details make up about 4 per cent. The only significant sex difference in content of responses is the Art response, with girls giving a mean of 1.83 per cent and the boys 0.10 per cent. This difference is significant at the one per cent level with a t of 2.825.

Comparison with other age groups indicates a tendency toward increasing use of human concepts with age. Here again Ford's group of very superior six and seven year old children reverses the trend. The A per cent seems fairly stable

for all age groups and constitutes approximately half of the responses.

Popular Responses

The popular responses, scored according to Klopfer's norms for adults, comprised 22.56 per cent (S. D. 11.0%) of the total responses. The frequency of response to each of Klopfer's ten populars is given in Table VIII. The per cent of subjects responding is also given, as a considerable number of children gave several versions of a single popular.

TABLE VIII—Popular Responses

Card Number		*No. of Responses*	*Per cent of Subjects Responding*
I	(winged creature)	36	29
II	(animal)	30	28
III	(bow)	50	48
III	(people)	38	37
V	(bat)	105	83
VI	(animal skin)	10	10
VIII	(animals)	64	62
X	(spiders)	43	42
X	(animal head)	15	15
X	(worms)	2	2

Although the ten responses listed above are "universal" populars in the Rorschach literature, many workers have suggested that group populars may be established for special populations by using a criterion of frequency. Rorschach originally suggested that a response be classified as popular if it occurred with a frequency of one in three records; other workers have suggested one in six records. On this basis, certain responses may be established as group populars for this population of eight year old children. These responses are given in Table IX.

SUMMARY

This study has attempted to establish norms for the Rorschach test with eight year old children. The 100 subjects of this study were chosen from the eight year old children in the third grade of the Seattle Public Schools. The children came from five socio-economic levels of Seattle and were selected to include the middle range of intellectual ability. Evaluations by principals and school records were used to exclude seriously emotionally disturbed children from this sample. The final sample consisted of an equal number of boys and girls with a mean age of eight years and nine months.

The Klopfer method of administration and scoring of the test was used, and reliability of scoring was checked by having a random sample of responses independently scored by an experienced examiner. Mean percentage frequencies of the main scoring categories were computed and comparisons made between the sexes. The results were also shown in relation to normative data in other studies of school age children.

Perhaps the most important of the findings is the variability which characterizes the responses of these eight year old children. This varia-

TABLE IX—Group Populars

Card	*Location*	*Response*	*Per cent of Subjects Responding*
I	WS or WS	Mask or animal face	34
IV	W or W	Man or giant sitting or walking	17
IV	D (side)	Boots, shoes, or feet	20
VI	D (upper)	Bird or butterfly	30
VII	D (upper 2/3)	Two animals seen in relation to each other	42

bility, which is shown statistically by the magnitude of the standard deviations, is of the greatest importance in the interpretation of Rorschach records of children in this age range. It is felt that definite conclusions regarding the Rorschach characteristics of these children may not be established at this time. However, the study indicates quite clearly that some deviation from adult norms may be expected of the eight year old child.

REFERENCES

Ford, Mary. 1946. *The Application of the Rorschach Test to Young Children.* Minneapolis: University of Minnesota Press.

Gair, Mollie. 1944. Rorschach characteristics of a group of very superior seven-year-old children. *Rorschach Research Exchange, 8,* 31-37.

Hertz, M. R. 1935. Rorschach norms for an adolescent age group, *Child Development, 6,* 69-76.

Hertz, M. R. and Ebert, E. H. 1944. The mental procedure of six and eight year old children as revealed by the Rorschach inkblot method, *Rorschach Research Exchange, 8,* 10-30.

Kay, L. W. and Vorhaus, P. G. 1943. Rorschach reactions in early childhood, Part II, Intellectual aspects of personality development, *Rorschach Research Exchange, 7,* 71-77.

Kerr, Madeline. 1934. The Rorschach test applied to children, *British Journal of Psychology, 25,* 170-185.

Klopfer, B. and Kelley, D. M. 1942. *The Rorschach Technique.* New York: World Book Co.

Klopfer, B. and Margulies, Helen. 1941. Rorschach reactions in early childhood, *Rorschach Research Exchange, 5,* 1-23.

Ledwith, Nettie H. 1948. The performance of six-year-old children on the Rorschach ink blot test: a normative study. Ph.D. Thesis, University of Pittsburgh.

McFate, M. Q. and Orr, F. G. 1949. Through adolescence with the Rorschach, *Rorschach Research Exchange* and *Journal of Projective Techniques, 13,* 302-319.

Paulsen, Alma. 1941. Rorschachs of school beginners, *Rorschach Research Exchange, 5,* 24-29.

Ranzoni, J. H., Grant, M. Q. and Ives, V. 1950. Rorschach "Card-pull" in a normal adolescent population, *Journal of Projective Techniques, 14,* 107-133.

Rorschach, H. 1942. *Psychodiagnostics.* 3rd edition. New York: Grune and Stratton.

Schmid, C. 1944. *Social Trends in Seattle.* Seattle: University of Washington Press.

Stavrianos, B. 1942. An investigation of sex differences in children as revealed by the Rorschach method. *Rorschach Research Exchange, 6,* 168-175.

Sunne, D. 1936. Rorschach test norms of young children, *Child Development, 7,* 304-313.

Swift, J. W. 1945. Rorschach responses of 82 preschool children, *Rorschach Research Exchange, 9,* 74-84.

Vorhaus, P. G. 1944. Rorschach reactions in early childhood, Part III, Content and details in preschool records, *Rorschach Research Exchange, 8,* 71-91.

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Childhood Conflict Expressed Through Family Drawings

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A. INTRODUCTION

A number of years ago I started what has since become an extensive collection of children's drawings of their families. Several hundred drawings were obtained from children seen in clinic or private practice and from children living in an institution.

In a previous paper (Hulse, 1951) we have reported on family drawings by emotionally disturbed children and have described the technique developed in requesting these drawings from the patients. Since then we have investigated family drawings produced by children considered as "normal" and have compared these against the products of children clinically diagnosed as disturbed.

In studying these drawings we investigated whether and how the child reveals his feelings for parents, siblings and for himself and the concept he has about his place in the family. Having found significant clues to intrafamilial conflicts in the drawings of the disturbed child we also wanted to see how family conflicts might be projected in the drawings of children in latency and pre-adolescence who do not show clinical signs of emotional disturbance. For this purpose we obtained family drawings of school children through the cooperation of school principals and teachers.

For the study of serious psychopathology and its projection in family drawings we also analyzed a number of drawings of young people including the adolescent and post-adolescent age groups. Some of these were very sick patients and we were interested in determining whether their family drawings would give us a yardstick to measure the severity of the illness.

Most of the New York Public School teachers we consulted were of the opinion that a large number of the children in their classes, while not clinically diagnosed or treated, were "disturbed." We therefore asked specifically for a series of family drawings by public school children who were considered well adjusted. In addition, we obtained family drawings from a public school whose population consisted of children who were temporarily institutionalized in order to follow up a question raised in a previous paper whether temporary removal from the family causes specific changes in the structure of the family drawing. This will be discussed in detail in a forthcoming paper. We have obtained about 120 drawings by children in latency who were not clinically ill.[1] These we compared with our collection of several hundred drawings executed by ambulatory patients of the same age groups.

Because we are primarily concerned with the total appearance, the "Gestalt" of the family drawing, and since we analyze details only to support and to substantiate

[1] Miss Adele Franklin, director of All-Day Neighborhood Schools in New York, Miss Alice Bracken, principal of P.S. 405 and their staffs have made possible this study through their interested help and advice.

the impression which the total drawing conveys to us, we will focus on the broader aspects of the drawings rather than on single body characteristics.

B. CHILDHOOD CONFLICT WITH AND WITHOUT CLINICAL DISTURBANCE

We have observed that intrafamilial conflicts in different forms and to different degrees manifest themselves in practically all drawings with so very few exceptions that it was difficult to select even *one* for demonstration here which does not have obvious distortions and which is relatively free from conflict.

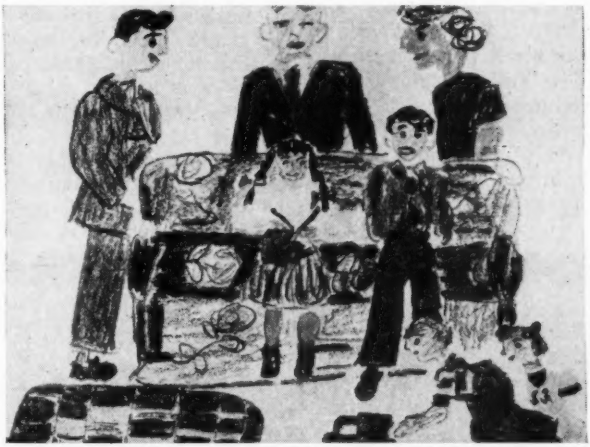

FIGURE I

Case I. This is the drawing of a 10-year-old girl, a public school student, Catherine O. Nothing is known about intra-familial discord. Catherine herself is described by her teacher as an "easy going, permissive, quiet and sweet child with a definite aptitude for drawing."

The drawing (Figure 1) shows the child herself in the center of the picture, full face, with the father broadly set behind her on the other side of the family table. The central position which the child gives herself we consider the manifestation of a good and secure ego. Mother is close to father, looking at him. (Whether her deformed nose has any special meaning I am unable to say.) The two older brothers flanking Catherine look aggressive, their hands as well as the hands of both parents are hidden which might have meaning in the sense of manual aggression. Patient's hands are quite demonstratively drawn, and so are the hands of the younger brother. Ears are large but are attributed only to males as a protruding body feature. Elaborate hair-dos are given to the three females. There is some obvious body distortion in the younger sister who is crowded into a corner. She has neither arms nor legs,—but we have to expect a 10-year-old girl to show some sibling rivalry toward a younger sister who in the drawing is safely tucked far away from father. The family set-

ting around a table, flowers and colored clothing in abundance, together with the colored rug and the toys point to enjoyment of the environment.

The family drawings done in school are very elaborate and far superior in technical quality to those done in our office or clinic. The lack of competition and of incentive in the doctor's office in contrast to the common drive of an average child to please his teacher, may partly explain this. While doing a drawing in school, a routine activity, the child usually is relaxed. An initial visit to a doctor or clinic provokes uneasiness, anxiety and resistance. These factors account for the differences in the technical quality of drawings obtained from school or diagnostic situations.

We will now discuss the large group of children whose drawings show a considerable amount of family conflict. Only some of those children are clinically ill. We published previously (Hulse, 1951) 17 drawings by children who were suffering from clinical symptoms of psychoneurosis, behavior disorders or psychosomatic diseases.

Case II.[2] Gerard, a 9-year-old boy, serves as typical example for this group. A lifelong enuretic, he shows many fears and infantile behavior. Present family comprises stepfather, mother, Gerard. Mother and stepfather have been under psychiatric treatment previously, mother suffers from a severe anxiety state; the stepfather is a restless inadequate person who has outbreaks of violent rage. The relationship of mother and son to stepfather is poor. The stepfather (of Polish descent like the mother) wants to make a "good boy" of Gerard, whom he regards as a "no-good bum" like his Italian father, a former prizefighter. The boy never wets his bed when he visits his real father, who is a very permissive person.

In the drawing (Figure 2) the dominating, threatening position of the male figure is pronounced. Mother and son play minor roles. Father possesses the cup, mother at least reaches out, but the boy has his arms close to the body, not permitting himself any action. Father faces him demandingly. Father is

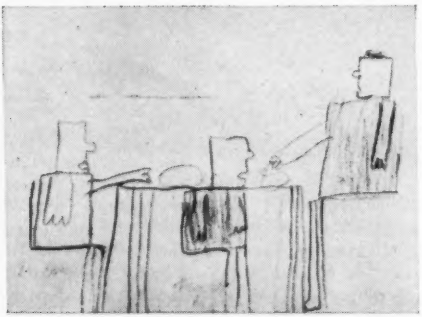

FIGURE 2

[2] This case is reprinted from the Quarterly Journal of Child Behavior with the permission of the editor.

the only one who has headgear or hair. Lack of lower bodies may represent Gerard's fear of sex, lack of eyes and ears probably means an attempt to avoid facing a threatening environment.

Case III. The spontaneous, symbolic painting (Figure 3) of a very gifted child, Georgette, age 6½ years, is called by her: "A married man and his wife." The large dark figure to the right is the wife, the (yellow) figure to the left, somewhat retreating, is the man.

"She really looks as if she wants to chop off his head or kill him," the child said on inquiry. It seems that the (yellow) ball in the upper center is the "chopped off head."

The mother figure shows a great deal of aggression. Mother is actually of slight build physically, but very aggressive, especially toward her husband. Father's aggression is repressed. Both parents are under psychiatric treatment. There are severe marital difficulties.

This child has shown some anxiety but has never been clinically ill and is in good function. The intrafamilial conflict nevertheless is dramatically expressed. Georgette's drawing as well as the next one by Louise are quite typical for the amount of conflict expressed by children who are in good function.

Case IV. Louise is a classmate of Catherine (Case I, Figure 1). Ten years old, she is described by her teacher as "a placid, cooperative child who gets on well with other children." It is known that there is dissension in this family by which, as the teacher says, Louise "seems untouched."

In her drawing (Figure 4) the setting is similar to that in Catherine's family drawing, but there are also important differences.

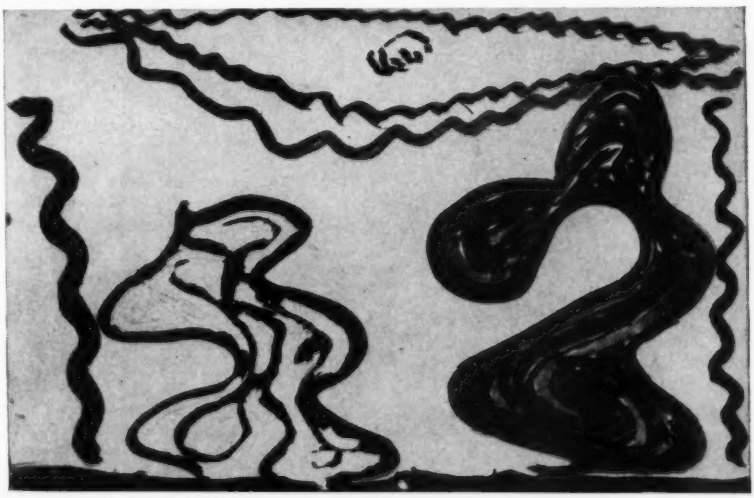

FIGURE 3

(The yellow ball in the upper center does not show fully in the above illustration but is indicated by its dark markings.

FIGURE 4

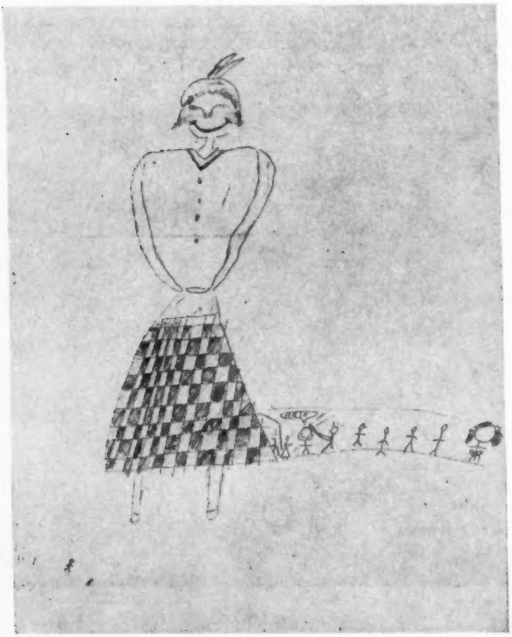

FIGURE 5

Louise, too, is in the center of the drawing. She wears aggressively large red hair ribbons. But her lower body disappears behind the table,—she has no lower body. Mother is close, but not actually behind her. Nevertheless, she derives great support from mother and oldest sister. But this is a completely female setting,—the brother appears weak and effeminate, and the father has been removed to the background (at the right). His hat denotes him as an outsider—he appears immature and distant. This is confirmed by the information we have obtained about the family constellation.

Our definite impression derived from our collected material is that the type of conflict shown in Cases 2, 3 and 4 is common in children of the latency period and does not denote in itself definite clinical pathology. But when the expression of conflict becomes as exaggerated and dramatic as in our next example one is able to recognize clinically the existence of severe emotional illness.

Case V. Christopher was 9½ when he executed this family drawing (Figure 5). He has a sister 3 years his senior. She is tall, like mother, while Christopher is short like father. Christopher is an intelligent child with tics that throw him forward into a bowing position and cause hic-cup like interruptions of his speech. His posture and gait also become impaired whenever he is disappointed or pressured. Father too has a facial tic. Christopher's sister had been under psychiatric treatment some years ago for overaggressiveness and sexual difficulties (masturbating excessively and exposing herself). She has great school difficulties and a low average I.Q. Recently she has shown delinquency (stealing) in school; psychometric tests show depressive and schizophrenic features. The mother is an anxious, aggressive, seductive and efficient woman.

Christopher spent 30 minutes on the elaborate drawing of mother while only 7 minutes were devoted to the rest of the drawing. All the color is given to mother and he talked in detail about her different dresses, skirts and blouses. He said that she looked "like a girl, not like a mother." When the drawing was finished, he pointed at her aggressive face and called her "hideous." The genital-like device between blouse and skirt denotes her "pocket book." After mother's figure was drawn, he hesitated. When I asked: "Who comes next?" he started father at the upper right but said then: "I can't draw father." Immediately after he started the little sticker male figure with the large head, he called it: "A man who is hit on the head and cries for help. He has stolen money from the woman" (who walks out of mother's skirt). This part of the drawing is called "a comic-strip." He became very excited. I asked: "Is this father?" Without answer, he drew now the larger, faceless figure farthest to the right, called it "father—he wears a toupe, a wig" (father does not but is rather bald and weak). He looked at the drawing with satisfaction and said, "Mother is so big, she could easily trample on father." Then, in a great hurry, he drew the two very small stickers on the left lower corner of the page, designating the larger one as his sister and the smaller as himself. "Mother can

hardly see us—but she can look down on us," he said.

The drawing is self explanatory, and confirms the family constellation in a true but extremely exaggerated cartoon-like ("comic-strip") fashion. Castration of the father as well as of both children by the domineering mother who alone is permitted to have form, sex, power and aggression is clearly demonstrated.

What we have seen in these 5 samples of drawings of three girls and two boys are expressions of Oedipal conflict in different stages of resolution, with different clinical pictures, i.e., from excellent life function to severe compulsive neurosis. The two extremes (Case I shows good, and Case V shows poor resolution) are easily discernible, but in between is the large majority of children in latency represented by Cases II, III, IV. They project their unconscious conflicts very definitely into their family drawings, and give us a great deal of insight into the family constellation, as it is experienced by the child. The family drawing provides an adequate medium, a kind of special language suited for the expression of unconscious feelings —and we are learning to understand this language. Whether definite psychopathology exists is a question which involves many additional factors and which can only in part be answered by the drawings. We can probably determine the gravity of the individual's struggle in the process of the resolution of the Oedipal conflict, but the drawing cannot demonstrate sufficiently all the factors during this struggle which may or may not force the child into what we consider (often somewhat arbitrarily) pathological behavior and emotional illness.

C. Family Drawings of Psychotic Patients

Since family drawings represent projections of unconscious conflicts on the Oedipal level we can expect more information about psychopathological features by examining the drawings of patients during acute psychotic episodes. These six drawings (Cases VI-VIII, Figures 6-11) were executed by 3 psychotic patients of different age groups before and after psychotherapy. The changes observed might help to determine the question what the signs of pathology in family drawings are like.

Case VI. Rhea was 5 years old when she executed this drawing (Figure 6). She had been brought to the clinic by her mother, who complained that the child had stumbled and fallen frequently of late, and had begun to stutter and to forget things. Her mother believed that Rhea was mentally retarded. Rhea was unusually calm, related only to younger children, and was unable to defend herself against any aggression. At times, the child was observed holding her picture book upside down.

Rhea has a very bright sister, 3 years older, who is openly favored by the controlling and very anxious mother who resents Rhea's behavioral difficulties. Father is a weak person, a stutterer who always had difficulties in supporting the family. A musician by profession, he became acutely ill when Rhea was 5 months old. He had a nervous disease which was never exactly diagnosed but was said to be of organic nature with temporary impairment of brain func-

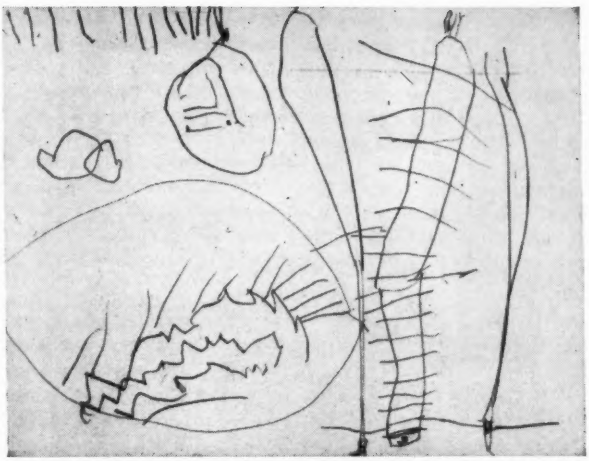

FIGURE 6

tion. After recovery, he became a letter carrier. During his illness, Rhea's mother, who had never enjoyed caring for her second child, neglected her completely, went away for extended periods of time with husband and older daughter and left the baby in someone else's care. Mother is very much aware of her rejection and shows great guilt feelings.

The drawing was produced during Rhea's first interview.

In the drawing, the large round body on the lower left was called "a ball." The largest (central) of the three worm-like figures on the right is called "Mommy;" it was drawn upside down, with feet on top of the sheet, farthest from the child. Rhea verbalized drawing of mouth (2 circles) and legs, but did not explain the segmentation. Next she drew "Daddy" in the same fashion. He is the slim figure between the ball and Mommy and was the first to "get arms," one pair near his head. another pair far down. Then Mommy, too, got a pair of arms.

When Rhea drew herself (upper left hand corner), she started with the circle, then made 15 short strokes, calling it: "This is me, this is me. I am small, the small girl." "And that's my mouth," she added, drawing the face-like lines and dots in the circle. Next she drew the two overlapping circles in the left center, calling them "bubbles, coming out of the mouth."

Asked about her sister, she ignored the question twice. Finally, she drew the slim figure next to mother on the extreme right, saying: "Make my sister big."

The drawing shows the dominating position of the mother as compared with father and sister. Rhea sets herself apart and seems to have a functional concept of her own person, while the other family members seem to be static.

The severe distortions of the hu-

man figure and the unusual upside down view of the persons seemed difficult to explain. We considered organicity but could not find sufficient supportable evidence. Rhea appeared to be a very anxious child, functioning on a level far below her age. Suddenly, and perhaps related to the change of nursery school teachers, she went into an acute psychotic episode under our direct observation. She showed features of psychosis which are very unusual for a child under 6: she produced free delusional and hallucinatory material, showed extreme restlessness, sleep and food intake became severely disturbed, and psychiatric care as well as home nursing presented very difficult problems.[3] Under very intensive daily psychotherapy with mother and child, Rhea's acute psychotic episode subsided, and she is now on a much better and higher level of functioning than ever before.

Since Rhea has come out of the psychotic state we have not been able to obtain a complete family drawing from her. She refuses to face such a task. But she is eager to draw the human figure, espe-

FIGURE 7

[3] A complete case history including the details of this very interesting period has been prepared for later publication by Miss Rose Davis, clinical psychologist, and the author.

cially little girls about whom she tells stories. We have good reason to agree with Altschuler and Hattwick (1947) that these drawings are self portraits. The drawing shown here (Figure 7) was produced 22 months after the first one. The difference is striking, even if we consider the intellectual, emotional and functional development taking place in a normal child during this time period. While the drawing of a friendly little girl with pig tails is not on the highest level we would expect from a 7 year old, the severe pathological distortions in the drawing of the human figure and in the execution of the drawing have completely disappeared. Clinically, the child is well on her way toward recovery.

According to our observations, very disturbed patients who freely produce pertinent drawing material during their acute episodes are often not willing to face this task again after they have gained some insight through therapy. This was also true of the next case.

Case VII. Bob is a 16-year-old boy who showed severe hostility toward his parents, especially the father. He failed in school despite an I.Q. of 135 (Bellevue-Wechsler). He bites his nails (his own comment: "I feel an urge to bite people"). The diagnosis confirmed by psychometrics was "early schizophrenia." Both parents are cold and controlling. Bob's upbringing was left to nurses. His mother wanted to leave his father because of his withdrawal from the family. The father, a brilliant academic teacher, has a schizoid personality. Several members in his family have been treated for schizophrenia.

Bob is left-handed. He took 15 minutes to draw father, 10 minutes to draw mother. He refused to draw himself. "I never see myself." The drawing (Figure 8) is carried out in minute detail. Outspoken mannerism in the bearing of both persons is shown. The mother's threat to separate from the father is represented by her turning away from him (left arm and leg). The father shows an aggressive attitude—the mother seems to protect herself against him; both appear aloof.

Bob had regular psychotherapy for two years, during which time he made good progress in his social adjustment. He returned to school and graduated at the head of his class. He is less hostile, has greater frustration tolerance, and has started to take out girls. His relations to his parents have improved, there is much less friction and better understanding at home. His mother worked temporarily with a psychiatric social worker while his father refused psychiatric contact (except for a few occasional interviews with me), although he admitted his own disturbance.

The family drawing (Figure 9) obtained two years after the first one (after refusal to do one after the first year of treatment) clearly shows improvement but still contains a considerable amount of the schizoid elements seen previously.

Both parents have turned into very domestic persons, the mother handling useful and friendly tools. There is much less mannerism in their behavior, but mother still turns away from father (see her right leg and foot). They are not strangers, passers-by, any more. Most important of all, the son has returned to the family fold; he "can see himself" now. He still remains at a distance, isolated, his arms in a position that seems to say: "don't touch me!" We see

FIGURE 8

great improvement but not full recovery.

Case VIII.[4] Berta is 21 years old, suffering from a psychosomatic dermatological condition (generalized neuro-dermatitis and urticaria) and asthma. She had been treated unsuccessfully for several years before she came to us. The exacerbations of her somatic condition alternated with psychotic episodes.[5] She has good intelligence, but was in general very resistant and hostile. The description of this family painting (Figure 10) is given here in her own words.

She calls it: Home. —Age 10.

"A. In General—to show how the family appeared according to color and line relationships.

B. In Particular:

"1. Black corner is for my father, the white lines for his pleasanter moments. He comes into contact only through my mother or me, and makes no effort to reach out toward the others.

"2. Deep green corner farthest away from the black is my grandfather. These two are the most antagonistic and the farthest apart. Grandpa is close with my grandmother, my mother and with my sister, but not with me.

[4] I am able to present this case through the courtesy of Dr. Samuel R. Rosen, Chief of the Psychosomatic Follow-up Clinic at The Mount Sinai Hospital.

[5] The case will be described in detail in a later publication.

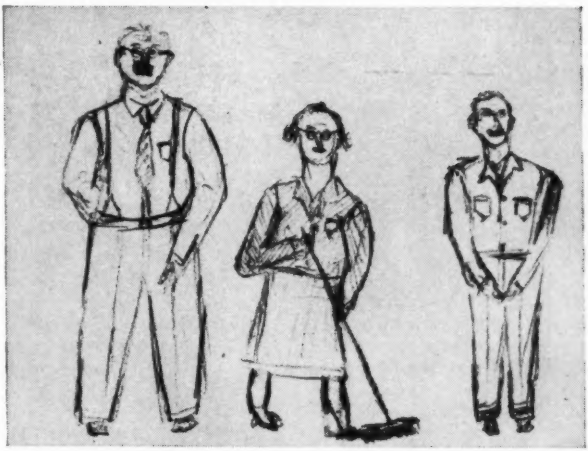

FIGURE 9

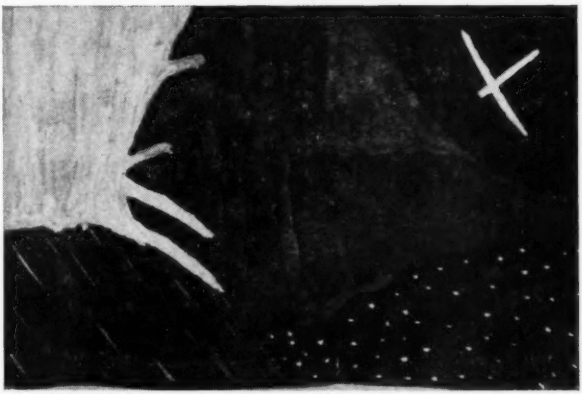

FIGURE 10

(The black area referred to is in the upper right; deep green, lower left; true green, lower right; blue, center and right center; soft blue gray, upper left; red, upper center.)

"3. True green is Ruthie, very similar to her grandfather with yellow dots for the traits she has which are so much like his, only being less strong: his are in lines, hers in dots. She is completely separated from the black, her contact there through the blue only. She does not make any advances either toward the others.

"4. A soft blue gray for my grandma, very gentle and withdrawn from the black whom she feared. She reached out toward all

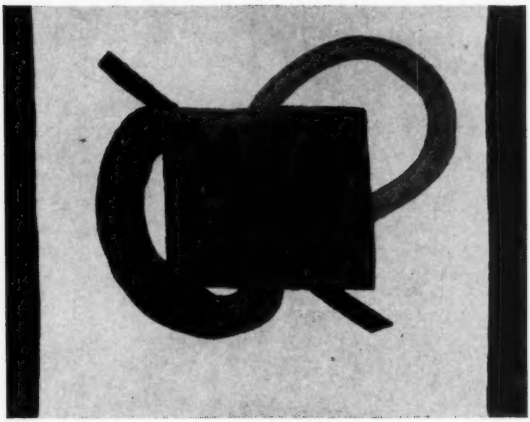

FIGURE 11

of us and tried through me to contact my father. She was very close to grandpa and my mother and advanced to Ruthie, but didn't quite touch.

"5. Deep blue for my mother—the blue being the color which holds the picture together. She touches each one and it is through her that most of the contacts are made.

"6. Red for me. In contact with the black, the pale blue, the pure blue and the green. The red reaches to the dark green but is not "encouraged" and does not touch. The red is leaning very heavily on the blue, and overlaps on the green where our interests clash."

In another family painting, she called her own color "different from all the colors."

Berta was treated for 18 months in individual and in group psychotherapy. Later an intensive course of Cortisone injections was added. During this last period, she has made considerable progress, not only in her dermatological condition but also in her emotional maturation process. She has gained insight, is less depressed and less hostile. Her abstract painting (Figure 11) of the family done during this later period (about 18 months after the first one), shows the increasing insight of the patient into her family constellation.

The following description is taken from the patient, but is not verbatim.

Mother is the domineering large central area. Father is represented by the two black strokes that limit the painting on both sides. The thick (blue) line is mother's father, an old man subdued and dominated by mother. The (green) semicircle is Berta's sister, growing stronger and emerging out from under mother, while Berta herself (orange) is still thin and partly covered by mother. "But I am at least now separated from father—before the black would have gone right over me."

A most impressive difference between the two symbolic paintings is the diminution of anxiety. This

permits patient to leave the paper background white while previously she had to cover it completely with paint. The influence of the father has diminished, both father and grandfather are now recognized as phallic figures while the phallic tentacles of the females have disappeared. The composition of the family picture is more balanced, aesthetic viewpoints have entered. The dominant role of the mother is recognized and the daughters are building up adequate defenses.

Here again the changes projected into the two family paintings are in accordance with the clinical picture.

D. COMMENTS AND SUMMARY

We have tried to use our material on family drawings in order to define better manifestations of psychopathology expressed in the drawings. We can say now that for the experienced examiner the developmental conflicts of childhood are recognizable in all family drawings of children in the latency period and after. If the expression of conflict shows only moderate degrees of disturbance, the question whether the child is emotionally ill or is heading toward emotional illness can only be answered with great caution. Very severe distortions in the relations of the family figures or in the figures themselves, as shown in Cases V and VI (Figures 5 and 6), are definite signs of severe psychopathology. Our material from psychotic patients is not large enough at the present moment to permit definite conclusions. The three cases selected here are representative of our material. The great differences between the drawings executed before and after intensive psychotherapy are sufficiently significant to conclude that the severe ego disturbance experienced during acute psychotic episodes is clearly manifested in the family drawings and that a comparison of drawings can be used during psychotherapeutic procedure to check whether the patient is making progress.

Children and psychotics project their deeper emotional feelings for the different members of their family into drawings which then attain the importance of induced "frozen dreams," (Hulse, 1949) giving definite and permanent proof of the fantasies of the patient during a certain period of his emotional development.

As we have learned to understand the "language of the dreams" of our patients, we will be able to make equal use of the drawings and paintings of our patients after we have learned enough to understand this significant symbolic language in which the unconscious speaks to us.

REFERENCES

Altschuler, Rose H. and Hattwick, La Berta Weiss. 1947. *Painting and Personality.* 2 volumes. Chicago: The University of Chicago Press.

Hulse, Wilfred C. 1949. Symbolic Painting in Psychotherapy. *American Journal of Psychotherapy, 3,* No. 4.

..... 1951. The Emotionally Disturbed Child Draws His Family. *The Quarterly Journal of Child Behavior, 3,* No. 2.

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Rorschach Responses of the Elementary School Child: Progress Report

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I. RESEARCH PLAN

Introduction

An approach to Rorschach test interpretation that increases objectivity by taking advantage of adequate group sampling is conspicuously absent in the published studies regarding the use of the Rorschach test with children. Standardization of this nature is, as a rule, one of the primary assets of an acceptable testing technique. Nevertheless, there has been through the years a resistance on the part of some Rorschach workers to such treatment of Rorschach data. Klopfer (1942) expresses this attitude in these words: "Such a schematization would be incompatible with the basic principles of the Rorschach method, and, in fact, with any true personality diagnosis, since it would induce the examiner to ignore the individual nuances and facets of any given record." This tendency to ignore the individual as an individual and to make an evaluation only in the light of group norms is a criticism that can be made regarding the use of any psychological measure that is standardized. Without traditionally standardized tests, however, the clinician would be handicapped in his diagnostic attempts, since an adequate test interpretation, whatever the nature of the test, gives due emphasis to conformity to group norms as well as to the individual "nuances and facets." At present the average worker using the Rorschach test with children is forced to rely on his own oft times abbreviated sampling with which to make group comparisons. The less experienced examiner has no choice but to compare the child's responses with accepted adult norms by a kind of qualitative or subjective interpolation. Neither of these methods can be as reliable as a comparison with statistically treated data from a carefully selected sample of children.

The need for such objectification is felt especially by workers who use the Rorschach test with the intermediate school age child. There has been a number of reported studies involving the use of the Rorschach with selected groups of preschool children and with similar groups of adolescents, but the lack of such investigation of the in-between group is a handicap to an adequate interpretation of the Rorschach protocols of these children. To help alleviate this situation, an intensive longitudinal investigation of a sample of school children in Pittsburgh and Allegheny County is now being made by the Pittsburgh Child Guidance Center. Hopefully other areas will be stimulated to instigate similar studies so that the final result will have more than local application.

Sampling Technique

This study was initiated in the fall of 1946. The elementary school age group was chosen as subjects not only because it has been neglected so far as normative data are concerned but also because of the fact that the majority of re-

ferrals to the agency making the investigation comes from this age group. Another important factor in the choice was the ease of contacting these children in a school setting. Because of the plan to follow the children through their elementary school years—six years of age through twelve years—the elementary school grades seemed the logical parent population. A rough estimate of that particular population in Pittsburgh and Allegheny County was made from the available school reports of the preceding year. An approximation was necessary because some of the schools included eight grades in the census report, and in the case of private schools, not even an adequate listing of the schools was available. The resulting estimation, including all types of schools, was 160,000 children — approximately 51,000 in the Catholic Parochial Schools of the area, 46,000 in the Pittsburgh Public Schools, 33,000 in the county schools, 26,000 in the independent school districts and 4,000 in private schools.

The first step in procuring a representative sample of this population was to enlist the help of officials of the various school systems in selecting a group of schools presenting a cross section of socio-economic levels in the sampling area. The thirty schools chosen in this manner presented, in the opinion of all concerned with the study, a fair representation of all socio-economic levels in Pittsburgh and Allegheny County. Nine Catholic Parochial Schools, eight Pittsburgh Public Schools, six county schools, five independent district schools and two private schools—the number of schools in each system being proportional to the respective populations of the school systems—were used in this investigation. An attempt was also made to prorate the number of children chosen from each school according to the size of the enrollment of that particular school. A further attempt was made to spread the sampling proportionate to the total population of each school system. The resulting sample was composed of 160 children—80 boys and 80 girls—distributed as follows: 52 children from the estimated 51,000 Catholic School population; 45 from the approximate 46,000 Pittsburgh Public School population; 33 from the estimated 33,000 county school children; 26 from the estimated 26,000 children of the independent school districts and 4 from the approximate 4,000 private school children. As a result of this procedure there was included in the sample approximately one child per thousand of the elementary school population of Pittsburgh and Allegheny County.

The representativeness of this sample was first tested in regard to intelligence. The results of testing each child with the Stanford-Binet Examination, Form L, showed a normal distribution of intelligence among the group—with slight deviations to be explained later. The mean Binet I.Q. of the group was found to be 105.5, with a standard deviation of 14.5. Since the sample was drawn from an area comparable to that which Terman and Merrill, in their report on the 1937 revision of the Binet, designate as "urban," these data may be compared with those from their urban 6-14 year group. McNemar (1942) reports the mean of the Terman revision group of 864 to be 105.8, with a standard deviation of 14.7. Computation of t-values and application of chi-square give results to indicate that the population from which the two

samples are drawn are similar and that the children used in this study differ little in intelligence from the "urban" sample used in the Binet revision. Other tests of representativeness will be reported later.

Testing Procedure

The children of the study were contacted at their respective schools by one examiner during the 1946-47 school year. At the initial contact each child was given a Stanford-Binet Examination, Form L. This test not only served as a measure of the child's intelligence but also proved to be instrumental in highlighting qualitatively some aspects of the child's personality. Immediately after the intelligence test was completed, and without any definite break in the testing situation, the Rorschach cards were presented in the standardized manner.

During the succeeding school year, 1947-48, these same children were tested as near the anniversary of the first contact as possible. The Rorschach was repeated and the Goodenough Draw-a-Man Test administered. To check on the practice effect of repeating Rorschach tests annually, a control group was chosen on this second school visit. From the original thirty schools, 80 children—40 boys and 40 girls—approximately 7 years, 8 months, of age (the current age of the experimental group), were chosen in the same manner as the original group. They were given, in addition to the Rorschach test, a Binet Examination, Form L and a Goodenough Draw-a-Man Test. During this second year, 232 children were tested — 152 of the experimental group and 80 of the control group.

Both of these groups were again contacted during the third year, 1948-49. The Rorschach test was repeated, and Monroe Diagnostic Reading Examination was the additional test used. Since this was the third year of school experience for the children, this check on their academic progress was made as a means of pointing up any relationship between their achievement in this area and personality factors as revealed by the Rorschach. Two hundred and eighteen children were contacted during this year — 145 of the experimental group and 73 of the control.

Only the experimental group was tested during the fourth year, 1949-50. In addition to the Rorschach test, the Grace Arthur Performance Scale was administered to 144 children. This additional information about the intelligence of the children was sought for the study of relationship between Rorschach test factors and the distribution of intelligence factors.

In 1950-51, the fifth year of the study, 139 children of the original sample—70 girls and 69 boys—were given their fifth annual Rorschach test. The Wechsler Intelligence Scale for Children was also administered, with the thought that the results of this test would not only add to the already acquired knowledge about the child's intelligence, but would also serve as a basis for a correlation study between the Wechsler Scale for Children on the one hand, and the Binet and Grace Arthur Performance Scale on the other.

This yearly consecutive testing of the original sample has considerably increased the potentiality as well as the size of data accumulation. To date there have been 738 testing contacts with children of the experimental group, as they progressed from first through fifth grade. Adding to these the 151 con-

tacts with the control group in the second and third grades further increases the possibilities.

Following is a list of test results accumulated during the five years of testing:

889 Rorschach tests on children 6 yrs., 8 mos., through 10 yrs., 8 mos.
158 Stanford - Binet Examinations, Form L, at 6 yrs., 8 mos. level.
78 Stanford - Binet Examinations, Form L, at 7 yrs., 8 mos. level.
231 Goodenough Draw-a-Man tests at 7 yrs., 8 mos. level.
217 Monroe Diagnostic Reading Examinations at 8 yrs., 8 mos. level.
144 Grace Arthur Performance Tests at 9 yrs., 8 mos.
139 Wechsler Scales for Children at 10 yrs., 8 mos.

Even a cursory examination of these data gives an impression of the wealth of material for many studies over and above the normative investigation for which they were initially collected. Concurrent with the normative analysis a developmental study is in progress. These data are particularly adapted to such a study, since not only the personality development of the average child of six through twelve years of age, but also the personality development of individual children through that age range can be studied. In other words, there is the possibility of a longitudinal as well as cross sectional study of the developmental aspects of personality structure in normal children.

Plans are made for gathering validating criteria with which to compare the Rorschach data, and thus adding to the normative and developmental studies, one of validation.

One more year of testing will complete the originally planned design. Suggestion has been made that the children be studied through adolescence. Selection of specific tests to be given in addition to the Rorschach during the sixth year will depend on whether or not this suggestion is followed.

II. Rorschach Responses of Six-Year-Old Children: A Normative Study Progress Report

The first step in the normative study of the data accumulation described in Part I was the analysis (Ledwith, 1949) of the Rorschach data collected during the first year of the investigation. A complete account of this analysis will be incorporated in the final report of the normative study. A summarization will suffice for the purposes of this paper.

When first chosen, the 160 subjects in this study were in first grade and ranged in chronological age from 6 years, 6 months, through 6 years, 10 months, with an average age of 6 years, 8.3 months. Their I.Q.'s, as measured by the Stanford-Binet Examination, Form L, ranged from 77 through 148, with a mean of 105.5 and a median of 102.7. The distribution was normal except for the absence of the very slow and a slight excess of the very high. The resulting slight skewness was no doubt due, at least in part, to the fact that the extremely dull children enter first grade at a more advanced age and the very bright children usually are not double promoted until later in their academic careers. The children in this study came from a variety of socio-economic backgrounds. There was an equal number of boys and girls. The differences between the average chronological ages as well

as average I.Q.'s of the two sexes was so slight as to suggest the difference could have easily occurred by chance.

Each child was tested at school, with the seemingly full cooperation and interest of the child. The Klopfer method of administration, scoring and interpretation of the Rorschach test was used. Averages of the various test factors were computed. Comparisons between the sexes and between the upper and lower intelligence levels within the group were made in regard to these factors. These results were shown in relation to comparable data in other studies, of children as well as adults.

It is not within the scope of this paper to report the relationships found in these comparisons. An extensive discussion can be found in the original report (Ledwith, 1949). Some of the comparisons with other studies have little statistical significance because of the differences in the normative concepts involved and in the type of sampling used. More recent studies reported in current literature offer further, and in some cases, more adequate bases for comparison. One report that shows promise of yielding an interesting relationship is by Cass and McReynolds (1951).

Following are the averages in the various scoring categories, computed from the records of the six year olds in this study:

	Mean	S.D.
R	15.0	6.5
W%	53	17.9
D%	41	19.7
d+Dd+S%	6	6.5
M	1.2	1.5
FM	2.8	2.4
m	.2	.5
M+Fm+m	4.2	
F%	47	20.4
FC	1.0	1.3
CF	.7	1.0
C	.7	1.2
Sum C	2.3	
K	.6	
c	.2	
C′	.6	
H	2.3	2.2
A	7.4	3.7
Pathognomic	2.0	2.0
Common Content	3.2	3.0
P	3.1	1.6
A%	50	
Experience-Balance	1.2 to 2.3	
VIII, IX, X %	35	

For the sake of brevity and relevancy, only the summarized results of the study are recorded here. They are as follows:

1. The mean number of responses is 15.0 with a standard deviation of 6.5, indicating that the number of responses given by two-thirds of the six-year-old group range from 8.5 to 21.5. The boys gave significantly more responses than the girls, and the brighter children tended to give more responses than the less bright.

2. The percentage of W responses is higher than expected from the normal adult, the D responses slightly lower, and the d+Dd+S responses were considerably less than adult norms as reported in the literature.

3. Contrary to the generally accepted observation that the occurrence of human movement response is rare before eight years of age, 62½ per cent of these children gave at least one M. The M responses seemed unaffected by either sex or intelligence, and made up 8 per cent of the average record.

4. As would be expected from the literature concerning children's records, the mean number of FM, or animal movement responses exceeded that of human movement. FM responses were given by 88 per cent of the children. These responses made up 18 per cent of the average record.

5. The inanimate movement response, m, was too infrequent to

warrant statistical treatment. They comprised only 1 per cent of the average record.

6. The F% found in the study is consistent with that expected from reported adult norms. The more intelligent children tended to give a higher percentage of F than the less intelligent. Further study of the quality of F responses is indicated.

7. The tendency of CF+C to predominate over FC confirms the generally accepted observation that FC, an indicator of mature emotional adjustment, is less frequently found in children's records than the more immature responses CF and C. FC responses comprise 6 per cent of the average record and CF+C 10 per cent. Ninety-three per cent of children in the study gave color responses.

8. K, c, and C′, including all combinations of these scoring categories with form, together comprise only 9 per cent of the total responses. These responses were concentrated in a very small per cent of the records. No record contained k.

9. Animal content comprises 50 per cent of the total responses, and human figures 15 per cent. Pathognomic responses, which are claimed to indicate disturbance in adults, comprise 13 per cent. Other types of responses, grouped under "common content" make up the remaining 22 per cent.

10. Children in this study saw an average of 3.1 of Klopfer's ten popular responses. Only four children failed to see any. An investigation of popular responses common to this population sample is indicated.

11. A mean experience balance of 1.2 M to 2.3 sum C, according to the usual interpretation, indicates that the average child of this study tends to be stimulated more by environment than from inner promptings. If Klopfer's ratio of (Fm+m) to (Fc+c+C′) and (VIII, IX and X)% are applicable to children, this extratensive tendency may move in the direction of a more latent introversive potential.

Similar statistical treatment will be accorded the Rorschach data from the succeeding years. The final report of the completed normative study will include a full discussion of this year by year analysis and the resulting norms.

REFERENCES

Cass and McReynolds. 1951. A Contribution to Rorschach Norms. *Journal of Consulting Psychology. 15,* 178-184.

Klopfer, B., and Kelley, D. M. 1942. *The Rorschach Technique.* New York: World Book Co. 1942.

Ledwith, Nettie H. 1949. The Performance of Six-year-old Children on the Rorschach Inkblot Test: A Normative Study. *Univ. of Pitt., Bull., No. 8,* 1-6.

McNemar, Q. 1942. *The Revision of the Stanford-Binet Scale.* Houghton and Mifflin, Boston.

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The Performance of Kindergarten Children On the Rorschach Test: A Normative Study [1]

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INTRODUCTION

Most studies on the use of the Rorschach Test with young children have been quite limited in application since they were done either on a rather selected population (high intelligence and superior socio-economic status) or on quite restricted aspects of the test. In addition, the statistical data presented in some of these studies were quite meager.

Of the studies made on children below seven years of age those of Klopfer and Margulies (1941), Swift (1945), Ford (1946), Hertz and Ebert (1944), and McLeod (1950) were made on select populations. Those of Sunne (1936-37), Hertz and Ebert (1944), Kay and Vorhaus (1943), and Vorhaus (1944) were made on very limited aspects of the test. Those of Paulson (1941) and McLeod (1950) presented little statistical data.

The only normative study which has been done to date is that of Ledwith (1949). This study was made on 160 children of average intelligence (mean I.Q. of 105.5) from a wide variety of socio-economic backgrounds who ranged in age from 6 years, 6 months to 6 years, 10 months.

Normative studies such as Ledwith's are most necessary at these early age levels since otherwise the interpretation of Rorschach records at these early ages must be based on comparisons with adult standards rather than with children's standards. This makes satisfactory evaluation of records at these ages very difficult.

The purpose of the present study is to describe the Rorschach responses of a typical kindergarten population in order to provide more adequate bases than are now available for the evaluation of responses of kindergarten children. In subsequent papers the interpretive significance of the similarities and of the differences between kindergarten children's and adults' records will be considered.

THE SUBJECTS

In the present study there were 86 kindergarten children—43 girls and 43 boys. These children in three different classes made up the whole of the kindergarten population in one of the elementary schools in the San Jose Unified School District. The classes in this school were chosen for study because its population over a period of some years had been the least select group in the school district from the point of view both of intellectual ability of the children and of the socio-economic status of their parents.[2]

[1] The authors wish to express appreciation to Helen Margulies Mehr and Maud R. Gilman for their assistance in this investigation.

[2] During the preceding five year period (1945-1949) the average intelligence quotient for the total population in this school in grades one through six ranged between 98.4 in 1946-1947 and 103.2 in 1948-1949.

The subjects ranged in age from 5 years, 2 months to 6 years, 4 months with a mean of 5 years, 9 months. The mean age of the boys was 5 years, 9 months and that of the girls was 5 years, 10 months.

Form C of the Pintner-Cunningham Primary Test was administered to the children. The mean intelligence quotient for the group was 103.2 with a standard deviation of the distribution of 13.2. The mean I.Q. of the boys was 99.8 with a standard deviation of the distribution of 12.3. The mean I.Q. of the girls was 106.6 with a standard deviation of the distribution of 14.5.[3]

Occupational status of the fathers was used as an indication of the socio-economic status of the group. The fathers' occupations were classified according to the Dictionary of Occupational Titles (1939). Table I shows the percentage of fathers falling in each one of the major occupational groups for the boys, for the girls, and for the total group. A comparison can be made between each of these and the labor force picture for the San Francisco - Oakland Metropolitan District (for 1947). Thus according to both the data on intelligence and those on socio-economic status the girls would seem to be a more highly selected group than the boys since their average I.Q. is higher (C. R. = 2.37, P = .02) although still within the so-called normal range, and the occupational status of their fathers tends more in the direction of upper occupational groupings.

TABLE I—Percentages of Fathers in Various Occupational Groups

	Boys	Girls	Both	S.F. 1947
Professional	11.6	18.6	15.1	10.0
Semi-professional	2.3	2.3	2.3	
Managerial	4.7	20.9	12.8	16.0
Clerical and Sales	9.3	14.0	11.6	17.0
Service	9.3	7.0	8.1	9.0
Skilled Occupations	27.9	18.6	23.3	23.0
Semi-skilled Occupations	13.9	11.6	12.8	16.0
Unskilled Occupations	4.7	2.3	3.5	9.0
Students	4.7	2.3	3.5	
Unknown	11.6	2.3	7.0	1.0
Total	100.0	99.9	100.0	101.0

[3] For an unselected group of 69 of the 86 children (34 boys and 35 girls) to whom the Stanford Binet (Form L) was administered in the first grade the mean I.Q. was 103.4 with a standard deviation of the distribution of 9.9. The mean I.Q. of the boys was 101.2 with a standard deviation of the distribution of 8.6. The mean I.Q. of the girls was 105.5 with a standard deviation of the distribution of 10.5.

PROCEDURE

In order that good rapport would be established between the examiners and the subjects, each of the examiners visited in each of the three kindergarten classes and played with the children during the recess periods for several days before the test was administered to the first subjects.

The technique of administering the test was essentially that as described in Klopfer and Kelley (1942). The first variation in administration was in the initial instructions given to each child before the presentation of the first card. The initial instructions were, *"I am going to show you some pictures. Some children see some*

things in them; other children see other things. I want you to tell me what you see in the pictures." If no response was given within 15 seconds following the initial instructions the last statement of the above instructions was repeated.

If the child gave a response within 15 seconds after the initial instructions or after the repetition of the last part of the initial instructions and did not give another one within the succeeding 15 seconds the examiner then asked, "*Anything else?*" [4] This was the only occasion during the administration of the entire series of the cards on which the examiners prodded for a second response.

The inquiry was introduced by the statement, "*I want you to show me where you saw all the things that you told me about.*" This was followed by the statement, "*Show me the .....*" The child was asked to outline with his fingers the area which he had used for a particular concept. After he had finished outlining the area he was asked, "*What made it look like a .....?*"

Depending upon the materials elicited by the foregoing questions, one or more additional questions were asked. None of the responses to any of the additional questions which seemed to involve prodding was used in the scoring of main responses. In this series of additional questions most subjects had to be asked to designate the parts of the concepts they had given.

In scoring the records the scoring system suggested by Klopfer and Kelley was used. Certain modifications of this system were found necessary in order to describe more completely the children's records.

[4] This question proved valueless since almost none of the children who were asked the question added a response.

The first, and probably the most important modification, was the development of a set of symbols for scoring the construction of the W responses. The suggestion for this system is contained in Klopfer and Kelley.

The W responses were classified into seven categories as follows:

W_1 responses were the arbitrary responses in which the subjects' reactions were formulated without taking into consideration the particular features of the card to which the responses were given. This included a special form of arbitrary response which is designated as perseveration.

W_2 responses were the inaccurate unorganized outline responses. They were of three types: (1) the confabulatory W response; (2) the position response; (3) the confabulatory combination. In the confabulatory response the subject, carried away by the W tendency, simultaneously with the perception of a small portion of an area of the card, included the whole of the card in which only the small portion was accurately perceived. In the position response, the subject used the position of some detail on the card as the determining factor in his concept. In the confabulatory combination, the subject included various details in his response but placed them incorrectly.

W_3 responses were the crude determinant W's in which the form characteristics of the cards were not utilized and the basis of the concept was some determinant other than form, e.g., shading or color.

W_4 responses were the noncommittal form responses which avoided discrepancies between the concept and the blot material by using responses that did not necessitate form accuracy and at the same time did not require the use of any

other determinant. This type of W response has been described by Rapaport (1946).

W_5 responses were the unelaborated fairly accurate outline W's. They were the ones which approached the area of popular responses but without the elaboration found in the populars.

W_6 responses were the organized popular W's. In these the subject used those qualities of the blot used by the majority of all subjects in elaborating his concepts.

W_7 responses were the superior W's. This superiority was indicated by unusual elaborations, by refinements in the use of shading and color, or by adequate and unusual organization of the major parts of the cards into a W response.

A second change was the use in the scoring categories for the determinants of the symbol F_D. This symbol was used to describe various forms, e.g., squares, dots, points, etc., with which some of the children in this study responded quite frequently. This modification was suggested by some findings of Mons (1948) and of Sunne.

The third modification was also in the area of scoring categories for determinants. This was the use of the symbol F?. This symbol was used to score all noncommittal form responses, (e.g. mountains, rocks, etc.) no matter what the location of the response, which avoided discrepancies between the concept and the blot material.[5]

RESULTS

General

The data presented in Table II through Table X are primarily normative. The data are given for each sex separately and for the two sexes combined. Although the data are presented separately for each sex, reference will be made only to the combined results. Whether the differences which appear between the two sexes are due to sex differences or are differences due to the intellectual level differences between the two sexes can not be determined. In view of the findings in Thompson's (1950) study in which no sex differences were found when 20 pairs of children matched for I.Q. from this same population were compared, it seems probable that any differences between the two sexes appearing in these data may be due to differences in intellectual level. Hence the data on the combined group represent what can be expected from a group of children with a mean I.Q. of approximately 103. However, the data for the boys could probably be used as standards for a group with a mean I.Q. of approximately 100, and those for the girls for a group with an I.Q. of approximately 107.

In Table II the medians and the first and third quartiles as well as the mean and standard deviation are given for the various Rorschach variables. The mean and standard deviation are included only because they allow comparisons to be made between the results of this study and those of earlier studies, particularly the recent normative study made by Ledwith. However, in reporting the present findings only the medians and the first and third quartile points will be used since these are counting procedures rather than additive ones, and as such are to be preferred in dealing with Rorschach data according to Cronbach (1949).

Table II shows that the median number of responses (R) is 12.0, with the middle fifty per cent of the subjects giving between 10.0 and 17.0 responses.

[5] See W_4 responses.

TABLE II—Rorschach Responses of Kindergarten Children of Five Years Nine Months of Age

	Boys*			Girls*			Both Sexes*			Boys		Girls		Both Sexes	
	Med.**	Q1	Q3	Med.	Q1	Q3	Med.	Q1	Q3	M	S.D.	M	S.D.	M	S.D.
R	12.3	10.0	17.6	11.9	10.0	16.9	12.1	10.0	17.0	15.1	8.9	14.9	11.0	15.0	10.0
Reaction time															
Gray blots	9.8	6.9	14.6	7.9	5.9	14.3	9.1	6.2	14.4	12.2	8.5	10.4	6.5	11.3	7.7
Colored blots	9.7	5.0	16.1	8.5	5.8	13.3	9.2	5.6	13.6	11.2	7.2	10.2	8.2	10.8	7.7
All blots	9.9	6.0	14.6	8.0	6.2	12.8	9.4	6.0	13.9	11.6	6.9	10.4	6.8	11.0	6.9
W	6.6	4.2	8.2	6.2	2.2	9.0	6.4	3.6	8.6	6.1	2.7	5.8	3.4	5.9	3.1
W%	51.0	19.8	70.5	47.0	20.8	81.2	48.0	20.5	72.5	48.9	26.9	49.0	33.4	48.9	30.5
D	4.3	2.3	6.3	3.4	0.9	7.6	3.8	1.9	6.9	5.2	4.5	5.3	6.9	5.3	5.8
D%	32.3	23.8	40.5	33.0	9.2	50.8	32.4	20.3	46.3	33.8	18.0	31.7	22.9	32.9	20.6
d	0.4	0.0	2.0	0.4	0.0	1.4	0.4	0.0	1.7	1.4	2.1	1.1	1.9	1.2	2.0
d%	0.9	0.5	12.1	0.8	0.5	12.1	0.9	0.5	12.1	6.8	8.2	6.4	8.7	6.6	8.5
Dd	0.8	0.1	2.3	0.6	0.0	1.4	0.7	0.1	1.9	1.8	3.0	2.5	6.1	2.1	4.8
Dd%	6.8	0.6	14.8	5.4	0.5	14.6	5.8	0.6	14.8	8.9	9.5	10.2	15.7	9.6	13.1
S	0.2	0.0	0.8	0.1	0.0	0.4	0.1	0.0	0.5	0.6	1.3	0.3	0.7	0.4	1.1
S%	0.7	0.4	4.6	0.6	0.3	0.9	0.7	0.3	1.0	3.0	4.9	2.2	4.3	2.6	4.6
Dd+S	1.0	0.2	2.6	0.8	0.1	2.6	0.9	0.1	2.6	2.3	3.8	2.8	6.3	2.6	5.2
Dd+S%	7.8	0.7	17.3	5.6	0.6	18.3	7.0	0.6	17.5	11.5	11.9	12.0	16.8	11.8	14.6
d+Dd+S	1.4	0.3	4.3	1.2	0.2	3.3	1.3	0.3	3.9	3.7	5.5	3.8	7.8	3.8	6.8
d+Dd+S%	11.8	0.8	30.3	9.5	0.7	28.3	10.5	0.8	28.5	18.1	17.7	18.0	22.4	18.0	20.2
M	0.1	0.0	0.4	0.1	0.0	0.5	0.1	0.0	0.4	0.3	0.6	0.4	0.9	0.3	0.7
M%	0.6	0.3	0.9	0.6	0.3	1.0	0.6	0.3	0.9	2.5	5.6	3.0	6.1	2.7	5.9
FM	0.4	0.0	1.7	0.2	0.0	1.4	0.3	0.0	1.4	1.1	1.9	0.7	0.9	0.9	1.6
FM%	0.9	0.4	14.3	0.7	0.4	7.6	0.8	0.4	8.3	7.4	10.8	5.0	8.1	6.2	9.6
m	0.1	0.0	0.4	0.1	0.0	0.5	0.1	0.0	0.4	0.2	0.5	0.3	0.8	0.3	0.7
m%	0.6	0.3	1.0	0.6	0.3	0.9	0.6	0.3	0.9	2.4	4.7	2.2	4.4	2.3	4.5
M+FM+m	0.4	0.0	2.8	0.4	0.0	1.6	0.4	0.0	2.3	1.5	2.1	1.3	2.1	1.4	2.1
M+FM+m%	0.9	0.5	20.6	0.9	0.5	10.3	0.9	0.5	16.5	10.8	14.8	9.1	13.6	10.0	14.3

* In this and all subsequent tables N (Boys) = 43, N (Girls) = 43, N (Both Sexes) = 86.

** In this and all subsequent tables all of the statistical constants used, whether of number or percent, have been based upon the numbers and percents of the various variables used by each individual (e.g. the Median W% is the Median of the W%'s determined for each individual subject).

bers and percents of the various variables used by each individual (e.g. the Median W% is the Median of the W%'s determined for each individual subject).

TABLE II *(Continued)*

	Boys			Girls			Both Sexes			Boys		Girls		Both Sexes	
	Med.	Q1	Q3	Med.	Q1	Q3	Med.	Q1	Q3	M	S.D.	M	S.D.	M	S.D.
FC	0.2	0.0	0.7	0.3	0.0	0.9	0.2	0.0	0.8	0.5	0.9	0.5	0.9	0.5	0.9
FC%	0.7	0.4	2.6	0.8	0.4	7.8	0.7	0.4	5.5	3.5	6.5	3.6	4.7	3.5	5.7
CF	0.2	0.0	0.7	0.3	0.0	0.9	0.2	0.0	0.8	0.4	0.7	0.5	0.8	0.4	0.8
CF%	0.7	0.3	4.1	0.8	0.4	6.3	0.7	0.4	4.8	2.7	4.1	4.4	7.5	3.6	6.1
C	0.3	0.0	1.2	0.3	0.0	1.2	0.3	0.0	1.2	0.7	1.2	0.7	1.3	0.7	1.3
C%	0.8	0.4	9.1	0.8	0.4	7.8	0.8	0.4	7.9	5.6	8.5	5.7	9.2	5.7	8.8
CF+C	0.7	0.0	1.9	0.9	0.1	1.9	0.8	0.1	1.9	1.1	1.4	1.2	1.5	1.2	1.5
CF+C%	4.5	0.5	11.6	5.5	0.6	16.3	5.0	0.6	14.2	9.0	11.2	9.2	11.0	9.1	11.1
FC+CF+C	1.3	0.2	2.4	1.2	0.3	2.8	1.2	0.2	2.6	1.6	1.8	1.7	1.7	1.7	1.7
FC+CF+C%	9.3	0.8	18.1	9.8	0.7	20.1	9.6	0.7	18.5	11.0	10.6	12.3	11.9	11.6	11.3
Sum C	1.5	0.3	3.2	1.6	0.4	2.8	1.5	0.4	3.0	1.9	1.9	2.0	2.2	2.0	2.0
FK	0.0	0.0	0.3	0.0	0.0	0.3	0.0	0.0	0.3	0.0	0.2	0.0	0.2	0.0	0.2
FK%	0.5	0.3	0.8	0.5	0.3	0.8	0.5	0.3	0.8	0.8	1.5	0.7	1.2	0.8	1.4
K	0.1	0.0	0.5	0.1	0.0	0.4	0.1	0.0	0.4	0.5	1.1	0.2	0.4	0.3	0.8
K%	0.6	0.3	1.0	0.6	0.3	0.9	0.6	0.3	0.9	2.7	5.1	3.2	8.4	3.0	7.0
F	8.5	6.9	11.1	9.3	6.4	10.9	8.9	6.7	11.0	10.8	7.5	11.2	10.8	11.0	9.3
F%	71.5	58.8	90.8	75.5	53.2	92.3	74.7	57.0	91.6	72.8	10.0	71.1	12.7	72.0	11.4
c+cF+Fc	0.0	0.0	0.3	0.1	0.0	0.3	0.0	0.0	0.3	0.0	0.0	0.1	0.3	0.1	0.2
c+cF+Fc%	0.5	0.3	0.8	0.6	0.3	0.8	0.5	0.3	0.8	0.5	0.2	1.2	2.1	0.8	1.6
C′+C′F+FC′	0.1	0.0	0.5	0.1	0.0	0.4	0.1	0.0	0.4	0.3	0.6	0.3	0.8	0.3	0.7
C′+C′F+FC′%	0.6	0.3	1.0	0.6	0.3	0.9	0.6	0.3	0.9	2.3	4.0	2.5	7.7	2.4	6.2
A+Ad	5.6	3.5	9.1	5.0	2.6	8.9	5.4	3.0	9.0	6.7	4.9	5.9	4.1	6.4	4.5
A+Ad%	47.5	29.5	60.4	42.5	22.8	64.6	45.6	24.5	60.8	45.6	23.3	43.2	24.8	44.4	24.2
H+Hd	1.0	0.1	2.1	1.0	0.1	2.3	1.0	0.1	2.2	1.7	2.7	1.7	2.7	1.7	2.7
H+Hd%	6.9	0.6	13.8	8.6	0.6	14.0	8.3	0.6	13.8	10.6	12.9	10.8	12.1	10.7	12.5
Content range	4.9	3.6	7.0	4.9	3.7	6.0	4.9	3.7	6.5	5.3	2.4	5.0	2.3	5.2	2.4
P	1.8	1.1	2.4	1.4	0.7	2.6	1.7	0.9	2.5	1.9	1.1	1.6	1.2	1.8	1.2
P%	13.3	9.2	23.1	10.9	7.9	18.1	12.0	8.5	20.3	15.0	9.3	12.9	8.7	13.9	9.1
O	0.8	0.2	1.6	0.9	0.2	1.9	0.9	0.2	1.8	1.3	2.0	1.5	3.0	1.4	2.6
O%	7.3	0.7	11.3	8.3	0.7	14.6	7.7	0.7	12.2	7.8	8.0	8.6	8.0	8.2	8.0

The median reaction time whether for the gray, colored, or both types of blots combined is between 9.0 and 9.5 seconds, with the middle fifty per cent of the children having an average reaction time between 5.5 to 6.0 seconds and 13.5 to 14.5 seconds.

Of the location categories, W is by far the most frequently used. The median W% is 48.0, with the middle fifty per cent of the subjects having a W% between 20.5 and 72.5. The median number of W responses is 6.5, with the middle fifty per cent of the group giving between 3.5 and 8.5 such responses.

The next most frequently used location category is D. The median D% is 32.5, with the middle fifty per cent of the children giving between 20.5% and 46.5% of such responses. The median number of D responses given by the group is 4.0, with the middle fifty per cent giving between 2.0 and 7.0 such responses.

The third most frequently used location category is Dd. The median percentage for this location category is 6.0, with the middle fifty per cent of the cases giving between 0.5% and 15.0% of such responses. The median number of Dd responses is 0.5, with the middle fifty per cent of the subjects giving between 0.0 and 2.0 such responses.

In the cases of both d responses and of S responses the median percentages are both less than one. Only in the case of the third quartile for d% is there a percentage great enough to warrant attention, this being 12.0%.

Of the determinants, form is by far the most frequently used. The median F% is 74.5, with the middle fifty per cent of the children giving between 57.0% and 91.5%. The median number of form responses is 9.0. Between 6.5 and 11.0 such responses are given by the middle fifty per cent of the group.

The median percentage and the median number of all other determinants is less than one. However, when the various color determinants are combined the median FC+CF+C% is 9.5, with the middle fifty per cent of the group using between 0.5% and 18.5%. The median number of FC+CF +C responses is 1.0, with the middle fifty per cent of the group giving between 0.0 and 2.5 such responses.

In the case of the movement responses, although the median M+FM+m% is slightly less than one, the third quartile point is at 16.5%. The median number of M+FM+m is less than 0.5. The third quartile point, however, is almost 2.5.

The median A+Ad% is 45.5, with between 24.5% and 61.0% being used by the middle fifty per cent of the group. The median number of A+Ad responses is 5.5, with the middle fifty per cent of the subjects using between 3.0 and 9.0 such responses. The median H+Hd% is 8.5, with the middle fifty per cent of the subjects using between 0.5% and 14.0%. For the number of H+Hd responses the median is 1.0, while the middle fifty per cent use between 0.0 and 2.0 responses. The median number of content categories (content range) is 5.0, with the middle fifty per cent of the subjects using between 3.5 and 6.5 content categories.

The median P% is 12.0, with the middle fifty per cent of the group ranging between 8.5% and 20.5%. The median number of P's is 1.5, while between 1.0 and 2.5 P's are used by the middle fifty per cent. For O% the median is 7.5, with the

middle fifty per cent of the cases ranging between 0.5% and 12.0%. The median number of O responses is 1.0, with the middle fifty per cent ranging between 0.0 and 2.0.

W-Response Constructions

The data on the various W-response constructions are given in Table III. The data which follow are for the combined groups and indicate the approximate number and approximate per cent of such responses given by the middle fifty per cent of the subjects. Unelaborated fairly accurate outline W's (W_5 responses) and organized popular W's (W_6 responses) are the types which are given most frequently by the children in this study. Between 0 and 3 W_5 responses, or between 0% and 20% of such responses, are to be expected from this group.[6] For the W_6 responses, 0 or 1 such responses or between 0% and 20% of such responses are to be expected.

Inaccurate unorganized outline W's (W_2 responses) and noncommittal form responses (W_4 responses) are next in the order of frequency. In the case of the W_2 responses, 0 or 1 such responses, and between 0% and 20% of such responses is typical. In the case of the W_4 responses, 0 or 1 such responses, and between 0% and 10% of such responses are to be expected from the group.

If the three kinds of W_2 responses are considered separately it is seen that the confabulatory W response and the confabulatory combination contribute about equally to the W_2 category. The position response, on the other hand, contributes very little to this category. Whereas a single confabulatory response and a single confabulatory combination may be given, even though more than half of the subjects at this age level do not give a single such response, it seems that a position response is not to be considered typical since approximately 90 per cent of the subjects do not give such a response.

Crude determinant W's (W_3 responses) and arbitrary W's (W_1 responses) are next in the order of frequency. Although in both of these cases almost three quarters of the subjects do not use a single such response, a single response of each kind (1% to 10% of the responses) is not too unusual.

The superior W's (W_7) are the most infrequently given of the seven types of W responses. About 85% of the subjects did not give a single such response.

Determinants

The data on the various types of determinants are given in Table IV-A, Table IV-B, and Table V. Table IV-A and Table IV-B show the number and per cent of the different kinds of form responses, the responses which constitute the largest single determinant category. Of the various form responses, F responses (responses of mediocre form accuracy) are given most frequently. Between 2 and 7 F responses or between 11% and 60% of such responses are to be expected from the group.

Next in order of frequency are the F− responses (responses of inferior form accuracy) and F? responses (noncommittal form responses). In the case of the F− responses, 0 to 3 such responses, and between 0% and 20% of such responses are typical. In the case of the F? responses, between 0 and 2

[6] Hereafter, in indicating what may be expected, what is typical, etc. the statements refer to the middle fifty percent of the group.

TABLE III—Percentage of Subjects Using Various Numbers and Percentages of W Responses

		Number						Percentages						
		0	1	2	3	4	5 or more	1-10	11-20	21-30	31-40	41-50	51-60	61 and above
W_1	Boys	72.1	16.3	7.0	4.7	0.0	0.0	9.3	14.0	4.7	0.0	0.0	0.0	0.0
	Girls	76.7	11.6	0.0	4.7	2.3	4.7	11.6	0.0	7.0	2.3	0.0	0.0	2.3
	Both Sexes	74.4	14.0	3.5	4.7	1.2	2.3	10.5	7.0	5.8	1.2	0.0	0.0	1.2
W_2	Boys	46.5	30.2	11.6	0.0	4.7	7.0	27.9	16.3	2.3	0.0	2.3	4.7	0.0
	Girls	55.8	16.3	7.0	11.6	2.3	7.0	11.6	16.3	9.3	0.0	0.0	2.3	4.7
	Both Sexes	51.2	23.3	9.3	5.8	3.5	7.0	19.8	16.3	5.8	0.0	1.2	3.5	2.3
W_2 (DW)	Boys	69.8	16.3	7.0	4.7	0.0	2.3	16.3	7.0	4.7	0.0	0.0	2.3	0.0
	Girls	69.8	23.3	4.7	0.0	0.0	2.3	18.6	9.3	0.0	0.0	0.0	2.3	0.0
	Both Sexes	69.8	19.8	5.8	2.3	0.0	2.3	17.4	8.1	2.3	0.0	0.0	2.3	0.0
W_2 (CC)*	Boys	65.1	20.9	9.3	4.7	0.0	0.0	23.3	4.7	7.0	0.0	0.0	0.0	0.0
	Girls	74.4	14.0	2.3	7.0	0.0	2.3	14.0	4.7	4.7	0.0	0.0	0.0	2.3
	Both Sexes	69.8	17.4	5.8	5.8	0.0	1.2	18.6	4.7	5.8	0.0	0.0	0.0	1.2
W_2 (Po.)*	Boys	90.7	7.0	2.3	0.0	0.0	0.0	4.7	4.7	0.0	0.0	0.0	0.0	0.0
	Girls	83.7	11.6	2.3	2.3	0.0	0.0	11.6	2.3	2.3	0.0	0.0	0.0	0.0
	Both Sexes	87.2	9.3	2.3	1.2	0.0	0.0	8.1	3.5	1.2	0.0	0.0	0.0	0.0
W_3	Boys	69.8	18.6	9.3	2.3	0.0	0.0	16.3	14.0	0.0	0.0	0.0	0.0	0.0
	Girls	72.1	18.6	4.7	2.3	0.0	2.3	11.6	11.6	2.3	0.0	0.0	0.0	2.3
	Both Sexes	70.9	18.6	7.0	2.3	0.0	1.2	14.0	12.8	1.2	0.0	0.0	0.0	1.2
W_4	Boys	44.2	37.2	14.0	0.0	2.3	2.3	37.2	14.0	0.0	4.7	0.0	0.0	0.0
	Girls	55.8	20.9	9.3	11.6	2.3	0.0	20.9	9.3	11.6	2.3	0.0	0.0	0.0
	Both Sexes	50.0	29.1	11.6	5.8	2.3	1.2	29.1	11.6	5.8	3.5	0.0	0.0	0.0
W_5	Boys	23.3	25.6	16.3	16.3	14.0	4.7	25.6	25.6	14.0	9.3	2.3	0.0	0.0
	Girls	37.2	23.3	14.0	14.0	11.6	0.0	23.3	20.9	11.6	7.0	0.0	0.0	0.0
	Both Sexes	30.2	24.4	15.1	15.1	12.8	2.3	24.4	23.3	12.8	8.1	1.2	0.0	0.0
W_6	Boys	20.9	58.1	18.6	2.3	0.0	0.0	48.8	23.3	7.0	0.0	0.0	0.0	0.0
	Girls	46.5	32.6	18.6	2.3	0.0	0.0	32.6	16.3	4.7	0.0	0.0	0.0	0.0
	Both Sexes	33.7	45.4	18.6	2.3	0.0	0.0	40.7	19.8	5.8	0.0	0.0	0.0	0.0
W_7	Boys	83.7	9.3	7.0	0.0	0.0	0.0	7.0	9.3	0.0	0.0	0.0	0.0	0.0
	Girls	86.1	7.0	0.0	2.3	0.0	4.7	7.0	2.3	2.3	2.3	0.0	0.0	0.0
	Both Sexes	84.9	8.1	3.5	1.2	0.0	2.3	7.0	5.8	1.2	1.2	0.0	0.0	0.0

*W_2 (CC) are the confabulatory combinations, and W_2 (Po.) are the position responses.

	Both Sexes	84.9	8.1	3.5	1.2	0.0	2.3	7.0	5.8	1.2	1.2	0.0	0.0	0.0			

*W_2 (CC) are the confabulatory combinations, and W_2 (Po.) are the position responses.

TABLE IV-A.—Percentage of Subjects Using Various Numbers of the Different Form Responses

		0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16 or more
	Boys	95.4	2.3	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
F+	Girls	93.0	4.7	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Both Sexes	94.2	3.5	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Boys	0.0	4.7	18.6	11.6	11.6	11.6	9.3	7.0	4.7	2.3	2.3	2.3	2.3	2.3	0.0	0.0	9.3
F	Girls	7.0	7.0	14.0	4.7	16.3	7.0	16.3	9.3	0.0	2.3	0.0	4.7	0.0	0.0	0.0	2.3	9.3
	Both Sexes	3.5	5.8	16.3	8.1	14.0	9.3	12.8	8.1	2.3	2.3	1.2	3.5	1.2	1.2	0.0	1.2	9.3
	Boys	74.4	11.6	7.0	2.3	0.0	0.0	0.0	0.0	2.3	0.0	0.0	0.0	0.0	0.0	2.3	0.0	0.0
F_D	Girls	79.1	2.3	2.3	2.3	2.3	0.0	4.7	0.0	2.3	0.0	0.0	0.0	0.0	0.0	2.3	0.0	2.3
	Both Sexes	76.7	7.0	4.7	2.3	1.2	0.0	2.3	0.0	2.3	0.0	0.0	0.0	0.0	0.0	2.3	0.0	1.2
	Boys	27.9	27.9	18.6	7.0	14.0	2.3	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
F?	Girls	48.8	16.3	14.0	9.3	7.0	0.0	0.0	0.0	0.0	2.3	0.0	0.0	0.0	0.0	0.0	2.3	0.0
	Both Sexes	38.4	22.1	16.3	8.1	10.5	1.2	1.2	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0	1.2	0.0
	Boys	34.9	25.6	20.9	4.7	0.0	4.7	4.7	0.0	0.0	4.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
F−	Girls	41.9	23.3	2.3	9.3	9.3	7.0	2.3	0.0	2.3	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Both Sexes	38.4	24.4	11.6	7.0	4.7	5.8	3.5	0.0	1.2	3.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TABLE IV-B.—Percentage of Subjects Using Various Percentages of the Different Form Responses

		1-10	11-20	21-30	31-40	41-50	51-60	61-70	71-80	81-90	91-100
	Boys	2.3	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
F+	Girls	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Both Sexes	4.7	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Boys	0.0	23.3	16.3	9.3	20.9	11.6	4.7	9.3	4.7	0.0
F	Girls	4.7	16.3	14.0	16.3	16.3	7.0	7.0	2.3	9.3	0.0
	Both Sexes	2.3	19.8	15.1	12.8	18.6	9.3	5.8	5.8	7.0	0.0
	Boys	23.3	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
F_D	Girls	16.3	2.3	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Both Sexes	19.8	2.3	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Boys	30.2	27.9	9.3	2.3	0.0	2.3	0.0	0.0	0.0	0.0
F?	Girls	11.6	23.3	9.3	4.7	0.0	2.3	0.0	0.0	0.0	0.0
	Both Sexes	20.9	25.6	9.3	3.5	0.0	2.3	0.0	0.0	0.0	0.0
	Boys	25.6	20.9	7.0	2.3	2.3	2.3	0.0	2.3	2.3	0.0
F−	Girls	18.6	11.6	9.3	9.3	4.7	0.0	0.0	0.0	4.7	0.0
	Both Sexes	22.1	16.3	8.1	5.8	3.5	1.2	0.0	1.2	3.5	0.0

TABLE V—Percentage of Subjects Using Various Numbers and Percentages of the Rorschach Determinants Other Than Form

		Number								Percentages					
		0	1	2	3	4	5	6	7 or more	1-10	11-20	21-30	31-40	41-50	51-60
M	Boys	83.7	7.0	9.3	0.0	0.0	0.0	0.0	0.0	9.3	4.7	2.3	0.0	0.0	0.0
	Girls	79.1	11.6	4.7	2.3	2.3	0.0	0.0	0.0	11.6	7.0	2.3	0.0	0.0	0.0
	Both Sexes	81.4	9.3	7.0	1.2	1.2	0.0	0.0	0.0	10.5	5.8	2.3	0.0	0.0	0.0
FM	Boys	58.1	14.0	14.0	7.0	2.3	0.0	0.0	4.7	16.3	14.0	9.3	0.0	2.3	0.0
	Girls	67.4	14.0	4.7	7.0	7.0	0.0	0.0	0.0	18.6	4.7	9.3	0.0	0.0	0.0
	Both Sexes	62.8	14.0	9.3	7.0	4.7	0.0	0.0	2.3	17.4	9.3	9.3	0.0	1.2	0.0
m	Boys	79.1	14.0	2.3	2.3	2.3	0.0	0.0	0.0	16.3	2.3	2.3	0.0	0.0	0.0
	Girls	81.4	14.0	4.7	0.0	0.0	0.0	0.0	0.0	11.6	7.0	0.0	0.0	0.0	0.0
	Both Sexes	80.2	14.0	3.5	1.2	1.2	0.0	0.0	0.0	14.0	4.7	1.2	0.0	0.0	0.0
M+FM+m	Boys	55.8	7.0	9.3	11.6	4.7	4.7	2.3	4.7	7.0	14.0	14.0	2.3	4.7	2.3
	Girls	53.5	20.9	7.0	2.3	4.7	2.3	4.7	4.7	23.3	7.0	2.3	11.6	0.0	2.3
	Both Sexes	54.7	14.0	8.1	7.0	4.7	3.5	3.5	4.7	15.1	10.5	8.1	7.0	2.3	2.3
FC	Boys	72.1	14.0	9.3	2.3	2.3	0.0	0.0	0.0	16.3	7.0	4.7	0.0	0.0	0.0
	Girls	65.1	23.3	4.7	7.0	0.0	0.0	0.0	0.0	23.3	11.6	0.0	0.0	0.0	0.0
	Both Sexes	68.6	18.6	7.0	4.7	1.2	0.0	0.0	0.0	19.8	9.3	2.3	0.0	0.0	0.0
CF	Boys	72.1	18.6	7.0	2.3	0.0	0.0	0.0	0.0	20.9	7.0	0.0	0.0	0.0	0.0
	Girls	65.1	25.6	4.7	4.7	0.0	0.0	0.0	0.0	25.6	4.7	4.7	0.0	0.0	0.0
	Both Sexes	68.6	22.1	5.8	3.5	0.0	0.0	0.0	0.0	23.3	5.8	2.3	0.0	0.0	0.0
C	Boys	60.5	20.9	11.6	2.3	2.3	0.0	2.3	0.0	20.9	11.6	4.7	2.3	0.0	0.0
	Girls	62.8	18.6	11.6	4.7	0.0	0.0	0.0	0.0	18.6	11.6	2.3	2.3	2.3	0.0
	Both Sexes	61.6	19.8	11.6	3.5	1.2	0.0	1.2	1.2	19.8	11.6	3.5	2.3	1.2	0.0
CF+C	Boys	46.5	23.3	14.0	11.6	0.0	0.0	4.7	0.0	26.6	14.0	11.6	2.3	0.0	0.0
	Girls	39.5	30.2	14.0	11.6	2.3	0.0	0.0	2.3	30.2	18.6	7.0	2.3	2.3	0.0
	Both Sexes	43.0	26.7	14.0	11.6	1.2	0.0	2.3	1.2	27.9	16.3	9.3	2.3	1.2	0.0
FC+CF+C	Boys	37.2	16.3	23.3	9.3	2.3	7.0	4.7	0.0	16.3	25.6	16.3	4.7	0.0	0.0
	Girls	30.2	27.9	11.6	18.6	4.7	4.7	0.0	2.3	25.6	23.3	13.0	4.7	2.3	0.0
	Both Sexes	33.7	22.1	17.4	14.0	3.5	5.8	2.3	1.2	20.9	24.4	15.1	4.7	1.2	0.0

TABLE V (*Continued*)

		Number							Percentages						
		0	1	2	3	4	5	6	7 or more	1-10	11-20	21-30	31-40	41-50	51-60
FK	Boys	95.4	4.7	0.0	0.0	0.0	0.0	0.0	0.0	4.7	0.0	0.0	0.0	0.0	0.0
	Girls	97.7	2.3	0.0	0.0	0.0	0.0	0.0	0.0	2.3	0.0	0.0	0.0	0.0	0.0
	Both Sexes	96.5	3.5	0.0	0.0	0.0	0.0	0.0	0.0	3.5	0.0	0.0	0.0	0.0	0.0
K	Boys	79.1	9.3	2.3	4.7	4.7	0.0	0.0	0.0	14.0	4.7	2.3	0.0	0.0	0.0
	Girls	86.1	11.6	2.3	0.0	0.0	0.0	0.0	0.0	7.0	0.0	4.7	2.3	0.0	0.0
	Both Sexes	82.6	10.5	2.3	2.3	2.3	0.0	0.0	0.0	10.5	2.3	3.5	1.2	0.0	0.0
c+cF+Fc	Boys	97.7	2.3	0.0	0.0	0.0	0.0	0.0	0.0	2.3	0.0	0.0	0.0	0.0	0.0
	Girls	90.7	9.3	0.0	0.0	0.0	0.0	0.0	0.0	9.3	0.0	0.0	0.0	0.0	0.0
	Both Sexes	94.2	5.8	0.0	0.0	0.0	0.0	0.0	0.0	5.8	0.0	0.0	0.0	0.0	0.0
C'+C'F+FC'	Boys	79.1	14.0	7.0	0.0	0.0	0.0	0.0	0.0	14.0	7.0	0.0	0.0	0.0	0.0
	Girls	83.7	11.6	2.3	0.0	0.0	2.3	0.0	0.0	14.0	0.0	0.0	0.0	2.3	0.0
	Both Sexes	81.4	12.8	4.7	0.0	0.0	1.2	0.0	0.0	14.0	3.5	0.0	0.0	1.2	0.0

such responses, and between 0% and 20% are to be expected.

Next in order of frequency are F_D responses (form descriptions). Almost one-fourth of the subjects use one or more such responses so that such a response is not to be considered unusual.

The least frequently used form response is the F+ response (response of superior form accuracy). Ninety-four per cent of the subjects do not use such a response.

Of the determinants other than form, only C, FM, CF, and FC are used to any appreciable extent. Table V shows that 0 to 1 or 0% to 10% of C responses, FM responses, CF responses, and FC responses are to be expected.

When the various color determinants are combined (FC+CF+C), it is seen that between 0 and 3 or from 0% to 20% of such responses are characteristic. In the case of CF+C, 0 to 2 or 0% to 20% of such responses are characteristic.

When the various types of movement responses (M+FM+m) are combined, 0 to 2 or 0% to 20% of such responses are to be expected.

In the cases of m, M, C′+C′F+FC′, and K, slightly less than one fifth of the subjects use these determinants one or more times. This would indicate that the use of these determinants at this age level is not too unusual. Six per cent or less of the subjects use c+cF+Fc and FK, indicating that the use of these determinants is very unusual at this age level.

Content

Table VI-A and Table VI-B show that the most frequently used content category is the animal response (A). The number of A responses that can be expected is between 2 and 7. The percentage of

TABLE VI-A. Percentage of Subjects Using Various Numbers of the Different Content Categories

		0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15 or more
H	Boys	62.8	27.9	4.7	4.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Girls	46.5	34.9	9.3	7.0	0.0	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Both Sexes	54.7	31.4	7.0	5.8	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Hd	Boys	65.1	11.6	9.3	4.7	4.7	0.0	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3
	Girls	62.8	18.6	2.3	7.0	4.7	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3
	Both Sexes	64.0	15.1	5.8	5.8	4.7	1.2	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3
H+Hd	Boys	39.5	23.3	20.9	2.3	7.0	0.0	4.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3
	Girls	39.5	23.3	16.3	2.3	9.3	4.7	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3
	Both Sexes	39.5	23.3	18.6	2.3	8.1	2.3	3.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3
A	Boys	7.0	0.0	23.3	14.0	2.3	14.0	9.3	14.0	2.3	4.7	4.7	2.3	0.0	0.0	0.0	2.3
	Girls	9.3	16.3	14.0	4.7	9.3	9.3	7.0	7.0	4.7	7.0	2.3	0.0	0.0	7.0	2.3	0.0
	Both Sexes	8.1	8.1	18.6	9.3	5.8	11.6	8.1	10.5	3.5	5.8	3.5	1.2	0.0	3.5	1.2	1.2
Ad	Boys	48.8	23.3	7.0	4.7	0.0	4.7	2.3	0.0	2.3	0.0	0.0	2.3	2.3	0.0	0.0	2.3
	Girls	51.2	16.3	16.3	9.3	0.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Both Sexes	50.0	19.8	11.6	7.0	0.0	5.8	1.2	0.0	1.2	0.0	0.0	1.2	1.2	0.0	0.0	1.2
A+Ad	Boys	2.3	2.3	9.3	11.6	9.3	14.0	11.6	7.0	4.7	4.7	4.7	7.0	0.0	2.3	0.0	9.3
	Girls	4.7	4.7	14.0	14.0	9.3	7.0	9.3	4.7	4.7	7.0	4.7	4.7	2.3	2.3	4.7	2.3
	Both Sexes	3.5	3.5	11.6	12.8	9.3	10.5	10.5	5.8	4.7	5.8	4.7	5.8	1.2	2.3	2.3	5.8
At	Boys	86.1	9.3	2.3	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Girls	86.1	4.7	7.0	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Both Sexes	86.1	7.0	4.7	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Obj.	Boys	39.5	18.6	11.6	18.6	4.7	2.3	4.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3
	Girls	51.2	23.3	16.3	4.7	0.0	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Both Sexes	45.4	19.8	15.1	11.6	2.3	2.3	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2
Pl	Boys	46.5	23.3	25.6	0.0	4.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Girls	53.5	27.9	7.0	7.0	4.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Both Sexes	50.0	25.6	16.3	3.5	4.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
N	Boys	53.5	11.6	7.0	11.6	7.0	7.0	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Girls	60.5	11.6	16.3	2.3	4.7	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	0.0	0.0
	Both Sexes	57.0	11.6	11.6	7.0	5.8	4.7	1.2	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0

N	Girls	60.5	11.6	16.3	2.3	4.7	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	0.0	0.0
	Both Sexes	57.0	11.6	11.6	7.0	5.8	4.7	1.2	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0

TABLE VI-A. Percentage of Subjects Using Various Numbers of the Different Content Categories *(Continued)*

		0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15 or more
	Boys	76.7	16.3	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Arch.	Girls	74.4	11.6	11.6	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Both Sexes	75.6	14.0	9.3	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Boys	88.4	7.0	0.0	2.3	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Clouds	Girls	90.7	4.7	2.3	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Both Sexes	89.5	5.8	1.2	2.3	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Boys	72.1	18.6	7.0	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Fire	Girls	88.4	7.0	2.3	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Both Sexes	80.2	12.8	4.7	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Boys	86.1	7.0	4.7	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Water	Girls	90.7	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	0.0	0.0	0.0	0.0	0.0	0.0
	Both Sexes	88.4	7.0	2.3	1.2	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0

TABLE VI-B. Percentage of Subjects Using Various Content Categories at Different Percentage Levels

		0	1-10	11-20	21-30	31-40	41-50	51-60	61-70	71-80	81-90	91-100
	Boys	62.8	27.9	4.7	4.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
H	Girls	46.5	32.6	16.3	2.3	0.0	2.3	0.0	0.0	0.0	0.0	0.0
	Both Sexes	54.7	30.2	10.5	3.5	0.0	1.2	0.0	0.0	0.0	0.0	0.0
	Boys	65.1	18.6	7.0	2.3	2.3	2.3	2.3	0.0	0.0	0.0	0.0
Hd	Girls	62.8	20.9	11.6	2.3	0.0	2.3	0.0	0.0	0.0	0.0	0.0
	Both Sexes	64.0	19.8	9.3	2.3	1.2	2.3	1.2	0.0	0.0	0.0	0.0
	Boys	39.5	23.3	23.3	7.0	2.3	2.3	2.3	0.0	0.0	0.0	0.0
H+Hd	Girls	39.5	30.2	14.0	7.0	4.7	4.7	0.0	0.0	0.0	0.0	0.0
	Both Sexes	39.5	26.7	18.6	7.0	3.5	3.5	1.2	0.0	0.0	0.0	0.0
	Boys	7.0	2.3	25.6	14.0	4.7	18.6	18.6	0.0	0.0	7.0	2.3
A	Girls	9.3	16.3	9.3	9.3	16.3	16.3	9.3	11.6	0.0	2.3	0.0
	Both Sexes	8.1	9.3	17.4	11.6	10.5	17.4	14.0	5.8	0.0	4.7	1.2

TABLE VI-B. Percentage of Subjects Using Various Content Categories at Different Percentage Levels *(Continued)*

		0	1-10	11-20	21-30	31-40	41-50	51-60	61-70	71-80	81-90	91-100
Ad	Boys	48.8	18.6	14.0	11.6	0.0	4.7	0.0	0.0	0.0	2.3	0.0
	Girls	51.2	18.6	14.0	9.3	2.3	4.7	0.0	0.0	0.0	0.0	0.0
	Both Sexes	50.0	18.6	14.0	10.5	1.2	4.7	0.0	0.0	0.0	1.2	0.0
A+Ad	Boys	2.3	0.0	14.0	9.3	7.0	30.2	18.6	7.0	0.0	4.7	7.0
	Girls	4.7	4.7	14.0	14.0	11.6	16.3	7.0	14.0	7.0	4.7	2.3
	Both Sexes	3.5	2.3	14.0	11.6	9.3	23.3	12.8	10.5	3.5	4.7	4.7
At	Boys	86.1	7.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Girls	86.1	4.7	9.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Both Sexes	86.1	5.8	8.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Obj.	Boys	39.5	18.6	18.6	23.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Girls	51.2	20.9	20.9	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Both Sexes	45.4	19.8	19.8	15.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pl	Boys	46.5	30.2	20.9	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Girls	53.5	27.9	9.3	4.7	4.7	0.0	0.0	0.0	0.0	0.0	0.0
	Both Sexes	50.0	29.1	15.1	3.5	2.3	0.0	0.0	0.0	0.0	0.0	0.0
N	Boys	53.5	14.0	14.0	11.6	4.7	2.3	0.0	0.0	0.0	0.0	0.0
	Girls	60.5	16.3	14.0	2.3	2.3	4.7	0.0	0.0	0.0	0.0	0.0
	Both Sexes	57.0	15.1	14.0	7.0	3.5	3.5	0.0	0.0	0.0	0.0	0.0
Arch.	Boys	76.7	14.0	9.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Girls	74.4	14.0	7.0	4.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Both Sexes	75.6	14.0	8.1	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Clouds	Boys	88.4	9.3	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Girls	90.7	4.7	0.0	2.3	2.3	0.0	0.0	0.0	0.0	0.0	0.0
	Both Sexes	89.5	7.0	1.2	1.2	1.2	0.0	0.0	0.0	0.0	0.0	0.0
Fire	Boys	72.1	20.9	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Girls	88.4	7.0	4.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Both Sexes	80.2	14.0	5.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Water	Boys	86.1	7.0	4.7	0.0	2.3	0.0	0.0	0.0	0.0	0.0	0.0
	Girls	90.7	7.0	0.0	0.0	0.0	0.0	2.3	0.0	0.0	0.0	0.0
	Both Sexes	88.4	7.0	2.3	0.0	1.2	0.0	1.2	0.0	0.0	0.0	0.0

A responses that can be expected is between 11% and 60%. Next in order of frequency are object responses (Obj.). Between 0 and 2 such responses and between 0% and 20% of such responses are characteristic. Animal detail responses (Ad) are third in order of frequency. Between 0 and 2 or between 0% and 20% of such responses are typical. Plant responses (Pl) are fourth in order of frequency. Between 0 and 1 or between 0% and 10% of these responses can be expected. Human responses (H) are fifth in order of frequency. Between 0 and 1 or between 0% and 10% of human responses are to be expected.

Nature responses (N) are sixth in order of frequency. Between 0 and 2 or between 0% and 20% of these responses are characteristic. Human detail responses (Hd) are seventh in order of frequency. It is to be expected that between 0 and 1 or between 0% and 10% of Hd responses will be used. Architecture (Arch.) and fire responses are next in order of frequency. One fourth of the children give one or more architecture responses and one-fifth of the children give one or more fire responses. Anatomy responses (At), water responses, and cloud responses are next in order of frequency. In all three of these cases between 10 per cent and 15 per cent of the children at this age level use 1 or more such responses. All other content categories[7] are used by less than 5 per cent of the children so they are not included in the tables.

Experience Types

Table VII gives the data on "experience balance."[8] The results for the M: sum C ratio indicate that kindergarten children tend to fall predominantly into two categories: the extratensive and constrictive. In the case of the FM+m to Fc+c+C′ ratio, the results are very different. In this case the children again fall predominantly into two categories, but this time they are the constrictive and introversive categories. However, instead of these two categories accounting almost equally for the children, the constrictive category accounts for about two-thirds of them and the introversive category for thirty per cent of them. On the percentage of responses to the last three cards (VIII, IX, and X) 28 per cent of the children fall in the extratensive category (percentage VIII-X greater than 40), 38 per cent of them fall in the ambiequal category (percentage VIII-X between 30 and 40), and 34 per cent fall in the

TABLE VII—Percentage of Subjects in Various Experience Balance Categories.

	M:ΣC			FM+m: Fc+c+C′			% VIII-X		
	Boys	Girls	Both Sexes	Boys	Girls	Both Sexes	Boys	Girls	Both Sexes
Extratensive	48.8	41.9	45.4	4.7	2.3	3.5	27.9	27.9	27.9
Ambiequal	2.3	4.7	3.5	0.0	2.3	1.2	39.5	37.2	38.4
Constrictive	44.2	46.5	45.4	58.0	74.4	66.3			
Introversive	4.7	7.0	5.8	37.2	20.9	29.1	32.6	34.9	33.7

[7] The form description (F_D) data are given in Table IV A and Table IV B.

[8] Hertz's system was used for classifying the M: sum C ratios. Since her classification system is very detailed it is not given here. The reader is referred to Bell (1948) p. 125 - 126.

introversive category (percentage VIII-X less than 30).

Manner of Approach

The data which give indications concerning what may be expected of children of this age level with regard to the manner of approach are presented in Table II and Table VIII. As has been pointed out earlier, at this age level a manner of approach largely in terms of W responses is the characteristic one. Approximately one-half of the total number of responses may be expected to be W responses. For the middle fifty per cent of the children in this study the average W% ranges between 20.5 and 72.5. Twenty-five per cent of the children use the whole card in their responses even to a greater extent. In Table VIII it is seen that almost ten per cent of the children use more than 90 per cent of W responses. On the other hand, only eleven per cent of the children use 10% or less of W responses.

The large usual detail responses are next in order of frequency. Approximately one-third of the total number of responses may be expected to be of this type. In Table II it was found that the median D% was 32.4, with a range for the middle fifty per cent of the cases from 20.3% to 46.3%. In Table VIII it is seen that slightly more than ten per cent of the children use more than 55% of D responses. Fourteen per cent of the group do not use a single D response.

The combination of rare detail responses and white space responses (Dd+S) is next in the order of frequency. In Table II it was found that the median Dd+S% was 7.0, with a range for the middle fifty per cent of the group from 0.6% to 17.5%. In Table VIII it is seen that only six per cent of the group use more than 30% of such responses. On the other hand, a Dd+S% of zero is given by forty per cent of the group.

TABLE VIII—Percentages of Subjects Giving Various Location Responses at Different Percentage Levels

	W			D			d			Dd + S		
	Boys	Girls	Both Sexes	Boys	Girls	Both Sexes	Boys	Girls	Both Sexes	Boys	Girls	Both Sexes
96-100	4.7	14.0	9.3	2.3	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0
91- 95	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
86- 90	4.7	9.3	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
81- 85	0.0	2.3	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	1.2
76- 80	7.0	2.3	4.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
71- 75	7.0	0.0	3.5	2.3	4.7	3.5	0.0	0.0	0.0	0.0	0.0	0.0
66- 70	4.7	2.3	3.5	0.0	2.3	1.2	0.0	0.0	0.0	0.0	0.0	0.0
61- 65	14.0	7.0	10.5	0.0	2.3	1.2	0.0	0.0	0.0	0.0	0.0	0.0
56- 60	2.3	0.0	1.2	2.3	4.7	3.5	0.0	0.0	0.0	0.0	2.3	1.2
51- 55	2.3	2.3	2.3	4.7	7.0	5.8	0.0	0.0	0.0	0.0	0.0	0.0
46- 50	11.6	9.3	10.5	9.3	9.3	9.3	0.0	0.0	0.0	2.3	0.0	1.2
41- 45	0.0	7.0	3.5	4.7	14.0	9.3	0.0	2.3	1.2	0.0	0.0	0.0
36- 40	9.3	2.3	5.8	11-6	4.7	8.1	0.0	0.0	0.0	4.7	0.0	2.3
31- 35	2.3	7.0	4.7	16.3	2.3	9.3	2.3	0.0	1.2	0.0	0.0	0.0
26- 30	0.0	2.3	1.2	16.3	4.7	10.5	0.0	0.0	0.0	2.3	11.6	7.0
21- 25	4.7	7.0	5.8	9.3	7.0	8.1	4.7	0.0	2.3	9.3	4.7	7.0
16- 20	7.0	4.7	5.8	11.6	4.7	8.1	11.6	14.0	12.8	9.3	7.0	8.1
11- 15	11.6	7.0	9.3	0.0	2.3	1.2	9.3	11.6	10.5	11.6	9.3	10.5
6- 10	4.7	2.3	3.5	2.3	9.3	5.8	16.3	11.6	14.0	23.3	9.3	16.3
1- 5	0.0	4.7	2.3	0.0	0.0	0.0	2.3	2.3	2.3	2.3	9.3	5.8
0	2.3	7.0	4.7	7.0	20.9	14.0	53.5	58.1	55.8	34.9	44.2	39.5

TABLE IX—Percentages of Subjects Using Various Types of Dd and S Responses

	dd			dr			di			de			S		
	Boys	Girls	Both Sexes	Boys	Girls	Both Sexes	Boys	Girls	Both Sexes	Boys	Girls	Both Sexes	Boys	Girls	Both Sexes
26 and above	2.3	4.7	3.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21-25	4.7	4.7	4.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	0.0	1.2
16-20	9.3	4.7	7.0	0.0	2.3	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.7	2.3
11-15	9.3	4.7	7.0	4.7	2.3	3.5	0.0	0.0	0.0	0.0	0.0	0.0	2.3	2.3	2.3
6-10	9.3	14.0	11.6	16.3	16.3	16.3	0.0	0.0	0.0	2.3	4.7	3.5	18.6	4.7	11.6
1- 5	4.7	9.3	7.0	11.6	7.0	9.3	0.0	4.7	2.3	4.7	2.3	3.5	7.0	7.0	7.0
0	60.5	58.1	59.3	67.4	72.1	69.8	100.0	95.4	97.7	93.0	93.0	93.0	69.8	81.4	75.6

The types of responses which contribute to the Dd+S% were studied. These data are presented in Table IX. It is seen that only three types of responses—dd, dr, and S contribute significantly to the Dd+S%. The tiny detail (dd) response is used by approximately forty per cent of the subjects to some extent. According to Table IX the range of dd% for the middle fifty per cent of the subjects would be approximately from 0% to 10%. The rare detail (dr) response is used by approximately thirty per cent of the subjects to some extent. The range of dr% for the middle fifty per cent of the subjects would be approximately from 0% to 5%.

Neither the edge detail (de) response nor the inside detail (di) response is given to an appreciable degree. Ninety-three per cent of the children do not give a single edge detail response, and ninety-eight per cent of them do not give a single inside detail response.

The small usual detail (d) responses are the lowest in order of frequency of the four location categories. The range for the middle fifty per cent of the children is from 0.5% to 12.1% of such responses.

Popular Responses

Scored in terms of the Klopfer and Kelley list of popular responses (P) the results in Table II show that one to two popular responses can be expected from children of this age level. Of the ten responses in the Klopfer and Kelley list only four are given frequently enough by the children in the present investigation to meet the usual criterion for populars, that is, of having a frequency of between one in six and one in three. It is seen in Table X-A that these four popu-

lars are: bow or butterfly on Card III, winged animal on Card V, animals in motion on Card VIII, and spider or crab on Card X.

Of the other six P's, one is not used by a single child. This is the P on Card VI (skin of an animal). The second P on Card X (colored snake) is given by only 3.5 per cent of the children. The remaining populars (on Card I, Card II, the first P on Card III, and the third P on Card X) are given by between 7.0 per cent and 9.3 per cent of the children.

ing to Card I. This is given by 17.4 per cent of the children as a W or a W response. The second is an animal response (monkey, dog, etc.) which is given as a D or a W to Card III by 27.9 per cent of the children. This response is given by a larger percentage of the children than the humans-in-action response which is given as the P for the same area in this card in the Klopfer and Kelley list. The third is the giving of a human response (man, lady, person, etc.) to Card IV as a W or W response. Such a re-

TABLE X-A—Frequency and P% for the Klopfer and Kelley Populars

		Boys		Girls		Total	
		N	P%	N	P%	N	P%
Card I	1.	5	11.6	3	7.0	8	9.3
Card II	1.	3	7.0	3	7.0	6	7.0
Card III	1.	6	14.0	1	2.3	7	8.1
	2*	15	34.9	22	51.2	37	43.0
Card V	1.	31	72.1	17	39.5	48	55.8
Card VI	1.	0	0.0	0	0.0	0	0.0
Card VIII	1.	9	20.9	9	20.9	18	20.9
Card X	1.	8	18.6	9	20.9	17	19.8
	2.	2	4.7	1	2.3	3	3.5
	3.	2	4.7	5	11.6	7	8.1

* 5 boys (11.6%) and 4 girls (9.3%) or a total of 9 (10.5%) used butterfly. 8 boys (18.6%) and 14 girls (32.6%) or a total of 22 (25.6%) used bow. 1 boy (2.3%) and 3 girls (7.0%) or a total of 4 (4.7%) used ribbon. 1 boy (2.3%) and 1 girl (2.3%) or a total of 2 (2.3%) used tie.

TABLE X-B—Frequency and Per Cent for Other High Frequency Responses

		Boys		Girls		Total	
		N	%	N	%	N	%
Card I	(Face)	9	20.9	6	14.0	15	17.4
Card III	(Animals)	12	27.9	12	27.9	24	27.9
Card IV	(Human)	4	9.3	10	23.3	14	16.3
Card VII	(Animals)	9	20.9	8	18.6	17	19.8
Card VIII	(Animals)	12	27.9	12	27.9	24	27.9

A study was made of the frequency with which certain kinds of content are given to certain areas of the cards. Table X-B shows that there are five other responses which are given with considerable frequency. The first of these is the use of a face (human, animal, other indication of a face) in responding to Card I. This is given by 17.4 per cent of the children as a W or a W response. The second is an animal response (monkey, dog, etc.) which is given as a D or a W to Card III by 27.9 per cent of the children. This response is given by a larger percentage of the children than the humans-in-action response which is given as the P for the same area in this card in the Klopfer and Kelley list. The third is the giving of a human response (man, lady, person, etc.) to Card IV as a W or W response. Such a response is given by 16.3 per cent of the children. The fourth is an animal response (rabbit, dog, etc.) to the upper two thirds of Card VII as a D or a W. This response was given by 19.8 per cent of the subjects. The fifth is an animal response given to the side D in Card VIII. This response is given to the

same area as the P in the Klopfer and Kelley list. It differs only from that P in that the animals are not seen in action. Of the present experimental group, 27.9 per cent use animals not seen in action as contrasted with 20.9 per cent who do see the animals in action.

Rejections

Table XI shows that children of kindergarten age tend to reject no cards. However, the rejection of one card seems to be within the normal limits, since the third quartile point is 0.7. The data suggest that the single rejection which may be considered normal may be of either a colored or a gray card.

Remarks

In Table XI data are given on the types of verbalizations which Mons classifies as remarks, exclamations, and question forms of response. In the present study all three of these types of verbalizations are included under remarks. It is seen that during the course of a record one can expect at least one such verbalization from children of this age. The normal limits range from 0.0 to 3.5 such verbalizations. The children tend to verbalize to a slightly greater extent on the gray than on the colored cards.

Turning

Table XI also presents quantitative data on the turning[9] of the cards. It would seem that during the course of the test a kindergarten child may be expected to make 1.5 quarter turns. The normal limits are between zero such turns and 4.5 such turns. The children seem not to turn the cards any more frequently when handling either colored or gray cards.

Comparison With Other Studies

The data in the present study will be compared with the data obtained by Ford and by Ledwith in their studies. Since in both the Ford and the Ledwith studies the statistical data given are means and standard deviations, it is necessary to make comparisons in terms of these statistical constants rather in terms of the ones which have been used thus far in the present investigation. The data necessary for making these comparisons are to be found in Table II.

TABLE XI—Rejections, Remarks, and Turning

	Rejections			Remarks			Turning		
	Med.	Q1	Q3	Med.	Q1	Q3	Med.	Q1	Q3
All Cards									
Boys	0.2	0.0	0.8	1.4	0.3	3.8	1.6	0.1	3.6
Girls	0.2	0.0	0.7	1.2	0.2	3.2	0.8	0.0	5.6
Both Sexes	0.2	0.0	0.7	1.2	0.2	3.5	1.4	0.1	4.4
Colored Cards									
Boys	0.1	0.0	0.4	0.6	0.0	1.5	0.4	0.0	2.6
Girls	0.1	0.0	0.4	0.3	0.0	1.8	0.4	0.0	2.9
Both Sexes	0.1	0.0	0.4	0.4	0.0	1.6	0.4	0.0	2.8
Gray Cards									
Boys	0.2	0.0	0.5	1.1	0.2	2.1	0.4	0.0	2.4
Girls	0.1	0.0	0.5	0.8	0.1	1.6	0.3	0.0	2.3
Both Sexes	0.2	0.0	0.5	0.9	0.1	2.0	0.4	0.0	2.3

Certain comparisons can be made between the results obtained in the present study on children of

[9] Each quarter turn was scored as a unit.

average intelligence and Ford's results on her children [10] of superior intelligence. The comparisons which can be made are limited for two reasons. In the first place, the scoring system used by Ford was different from that employed in the present investigation so that only comparisons can be made for those categories which were scored in the same manner. In the second place, since the mean number of responses was 17.2 in Ford's study and in the present study it was only 15.0, comparisons can only be made in terms of percentages and not in terms of the number of various responses.

Whereas the mean number of R in this study is 15.0, that in Ford's study is 17.2. This difference is to be expected in view of the fact that her subjects were superior in intelligence. In her study she finds that the mean number of R tends to become larger with both increases in M.A. and in C.A.

The average reaction time to all blots is almost identical in the two studies, 10.9 seconds in the Ford study and 11.0 in the present study. The average reaction time to the colored blots is very slightly longer in the Ford study, 11.0 as compared to 10.8. In the present study the average reaction time to the gray cards is slightly longer, 11.3 seconds as compared with 10.8 seconds. It would seem in view of these slight differences that reaction times to the blots, whether gray or colored, are approximately the same among 5 year old children whether of average or of superior intelligence.

The only location category on which the present investigation and that of Ford can be compared, because of the differences in the scoring system used, is W%. Whereas the mean W% in Ford's study is 33.3, that in the present investigation is 48.9. This result would tend to indicate that children of superior intelligence at age five tend to use a smaller percentage of W responses than do those of average intelligence. This finding is corroborated in Thompson's study.

In the case of determinants three comparisons can be made between this investigation and that of Ford. In the case of F%, the two investigations find that approximately three-fourths of all responses are form responses. In this investigation F% is 72.0. In Ford's study it is 73.8. In the case of M+FM+m% the Ford results are slightly higher, being 14.9 as compared with 10.0. In the case of FC+CF+C% the findings are similar; FC+CF+C% in the present investigation is 11.6 and in the Ford study it is 11.1. It thus seems that children of superior intelligence may use a slightly greater number of movement responses than children of average intelligence.

One further comparison on the determinants used may be made between this study and the Ford study. This comparison is made in terms of the percentage of children using certain determinants. Of Ford's superior five year old group 28 per cent give M responses, 76 per cent give FM responses, 16 per cent give m responses, 56 per cent give FC responses, 36 per cent give CF responses, and 36 per cent give C responses. Table V of the present study shows that of this average five year old group 19 per cent give M responses, 37 per cent give FM responses, 20 per cent give m

[10] The children in Ford's study ranged in age between 5 years, 0 months and 5 years, 11 months, probably averaging about 5 years, 6 months, whereas the mean age of the children in the present study was 5 years, 9 months.

responses, 31 per cent give FC responses, 31 per cent give CF responses, and 38 per cent give C responses.

The above data would tend to indicate that at five years of age both FM and FC may be expected to be given by a greater number of children of superior intelligence than of average intelligence. M and CF responses may be expected from a slightly greater per cent of superior five year olds. Approximately the same per cent of children using C may be expected from groups of either superior or average intelligence. A slightly greater per cent of children of average intelligence give m responses.

In the case of content three comparisons can be made. A+Ad% is somewhat greater in the Ford study. In Ford's study it is 51.9 per cent while in the present one it is 44.4 per cent. In H+Hd% there is a very slight difference between the two studies. In the Ford study it is 8.6 per cent. In the present investigation it is 10.7 per cent. In the case of content range Ford's findings are similar to those in the present study. Her group uses 5.4 content categories on the average as compared with 5.2 content categories used in the present study. These results seem to indicate that children of higher intelligence may have a slightly higher A+Ad% than children of average intelligence, a finding which was not expected and for which there seems to be no explanation in the data of this and other investigations.

The data of the two studies can be compared with reference to experience types. The results using the M:sum C ratio in the two studies are quite different. In the present study it is found that the children tend to fall predominantly into two categories, the extratensive and constrictive, 45.4 per cent in the extratensive and 45.4 per cent in the constrictive. Of the remainder 3.5 per cent fall in the ambiequal and 5.8 per cent in the introversive categories. In the Ford study about 60 per cent fall in the introversive category and 28 per cent fall in the extratensive category, with only 8 per cent falling in the constrictive, and 4 per cent falling in the ambiequal categories. Ford points out that her sample of children is highly selected with regard to both intelligence and socio-economic status and suggests that this may account for the fact that such a high per cent of her children show introversive tendencies. Ford does not present any data with regard to the FM+m:Fc+c+C′ ratio since she finds that the children in her study use very few m, Fc, c, and C′. This ratio is computed in the present study since even though these determinants are used very infrequently they are used with as great frequency as the M which is involved in the M:sum C ratio. As has already been pointed out, these two ratios give a different picture as far as experience balance is concerned.

The comparisons between this study and Ford's suggest that with increased intelligence (higher M.A.) a greater number of responses (R) will be given. There is some indication that children of higher intelligence will have a lesser W per cent. There are slight indications that a greater M+FM+m% and a greater A+Ad% will be given by superior children. There are also indications that more children of higher intelligence will give FM and FC responses than children of average intelligence. There are slight indi-

cations that more children of superior intelligence will give M responses.

Certain comparisons also can be made between the results of the present study on children who average 5 years, 9 months of age and Ledwith's results on children who average 6 years, 8 months of age.

In both the present study and Ledwith's study the mean number of responses is 15.0. However, the standard deviation of the distribution in Ledwith's study is somewhat smaller than that of the present study. Since the children in the Ledwith study are almost a year older than the children in the present investigation it would seem that the same number of responses is to be expected from both age groups. This finding does not agree with the evidence that during these early years R tends to increase with age. However, it should be borne in mind that the median number of R in the present study is approximately 12.0, indicating a positive skewness in the distribution of R which may not have been present in the Ledwith study.

For location categories, it is found that the mean W% and mean number of W responses is slightly lower in the present study. The mean number of W responses is 5.9 and the mean W% is 48.9 as compared with a mean number of 6.9 and a mean per cent of 53 in the Ledwith study. Both the mean number of D and the mean D% are lower in this study than in Ledwith's study. In this investigation the mean number of D is 5.3 as compared with 6.9 in the Ledwith study. The mean D% is 32.9 in this investigation and 41 in the Ledwith study. The greatest differences in the case of location categories seem to be in the mean number of d+Dd+S responses and in the mean per cent of d+Dd+S responses. In this study the mean number of d+Dd+S is 3.8 and in the Ledwith study it is 1.1. The mean d+Dd+S% in the present study is 18.0. In Ledwith's study it is 6.0.

Since the mean W% and the mean number of W's is only slightly greater in this study it would seem that only a slight difference, if any, is to be expected in W% and in the number of W at the two age levels represented by the two studies. Since the mean D% and the mean number of D's is somewhat smaller in the present study it would seem that a somewhat smaller number of D's and a somewhat smaller per cent of D's can be expected at the younger age level. In the case of both the mean number and the mean percentage of d+Dd+S responses the above results suggest that a younger age group would give a greater number and a greater per cent of such responses than the older age group. However, this implication may not be valid since the distributions for d+Dd+S and d+Dd+S% are skewed as is indicated by the fact that the means and medians for both distributions are different. The median number of d+Dd+S responses of 1.3 and the median d+Dd+S% of 10.5 are more in agreement with Ledwith's means which are respectively 1.1 and 6.0 than are the mean d+Dd+S and the mean d+Dd+S% in the present study.

The largest determinant category used in both studies is form. However, in the present study form is used to a much greater extent. The mean number of form responses is 11.0 and the mean per cent of form responses is 72.0 as compared with a mean number of

7.0 and a mean per cent of 47.0 in the Ledwith study.

Except for the three determinants m, C, and c all other determinants (M, FM, FC, CF, K, and C′) were used to a lesser extent by the younger children in this study than by the older children in the Ledwith study. The largest differences between the children in the two studies seems to be in M, FM, and FC. In the present study the mean number of M's is 0.3 as compared with 1.2 in Ledwith's study. The mean number of FM's is 0.9 as compared with 2.8. The number of FC's is 0.5 as compared with 1.0.

The foregoing results would tend to indicate that form is used predominantly at both 5 years, 9 months of age and 6 years, 8 months of age although the younger age group tends to use form to a much greater extent. Whereas in the present study color responses constitute the second largest determinant category and movement responses the third largest determinant category, in the Ledwith study this order is reversed.

As in the Ledwith study FM is greater than M. The present results are in agreement with the accepted observation that M responses are rare before the age of eight. Slightly less than 19 per cent of the children in the present study give M responses as compared with 62.5 per cent of the children who give M responses in the Ledwith study. It would therefore seem that an M response is not to be expected from children at this age level. Such a response is to be expected from children who are a year older.

As would be expected M+FM +m is smaller in the present study than in the Ledwith study, 1.4 as compared with 4.2. FC+CF+C is somewhat smaller in the present study, 1.7 as compared with 2.4. In the present study a CF+C of 1.2 is very slightly smaller than that found by Ledwith of 1.4. CF+C exceeds FC in both studies.

Three comparisons can be made with regard to content between the present study and Ledwith's study. Ledwith's group of six year old children uses a mean number of human responses of 2.3 as compared with 1.7 human responses in the present investigation. In the case of animal responses her group uses a mean number of 7.7 as compared with 6.4 in the present study. Ledwith's group uses a mean per cent of 50 animal responses as compared with a mean per cent of approximately 44 in the present study.

In this investigation the children use a mean of 1.8 P responses of Klopfer and Kelley's 10 P responses as compared with Ledwith's group who use a mean number of 3.1 of these responses.

The comparisons between the results of this study and Ledwith's suggest that with increase in C.A., and thus a higher M.A., there tends to be a lesser number of form responses, a lesser per cent of form responses, and a greater M+FM+m. There are some indications that the older children tend to use a greater number of D, a greater number of FM's, a greater number of animal responses, and a greater number of P. There are slight indications that children a year older use a greater number of W's, a greater D%, a greater number of M's, a greater number of FC's and a greater number of human responses.

The comparisons which have been made between this investigation and the investigations of Ford and Ledwith suggest that with an

increase in M.A. in these early years one may expect a greater number of R. In the case of location categories a decrease in the use of W's and an increase in the use of D's may be expected. In the case of the determinants an increase in the number of movement responses, an increase in FC responses, and a decrease in the number of form responses may be expected. In the case of the content categories an increase in the number of animal responses may be expected. An increase in the number of P responses given is also to be expected.

Summary and Conclusions

The Rorschach Test was administered as described in this study to 86 kindergarten children who averaged 5 years, 9 months in age and 103 in I.Q. As measured by occupational status of the fathers the group was somewhat higher than average in socio-economic status. Since the average I.Q. of the girls as well as the socio-economic status of their fathers was somewhat higher than those of the boys, data were presented in the study for both sex groups separately as well as for both groups combined. The results, however, were presented for the combined group only. The results in this study were based on measures of position (median, first quartile and third quartile) except in those cases in which comparisons were made with other studies in which measures of exact magnitude (mean and standard deviation) were used.

The following standards based on the median are suggested for this age level.

1. An R of 12.0.

2. A reaction time of 9.0 seconds to 9.5 seconds for both colored and gray blots.

3. A W of 6.5 and a W% of 48.0. Of the various types of W constructions the most frequently used were the unelaborated fairly accurate outline W's (W_5) and the organized popular W's (W_6). Next in order of frequency were the inaccurate unorganized outline W's (W_2) and noncomittal form responses (W_4). Crude determinant W's (W_3) and arbitrary W's (W_1) were next in frequency. Least frequently used were the superior W's (W_7).

4. A D of 4.0 and a D% of 32.5.

5. A d+Dd+S of 1.3 and a d+Dd+S% of 10.5.

6. A total F of 9.0 and a total F% of 74.5. Of the various kinds of F responses, responses of mediocre form accuracy (F) were used most frequently. Responses of inferior form accuracy (F−) and noncomittal form responses (F?) were next in order of frequency. Form description responses (F_D) were fourth in order of frequency. Responses of superior form accuracy (F+) were the least frequently used kind of form response.

7. A number and a per cent for all other determinants (M, FM, m, FC, CF, C, FK, K, c, and C′) of less than one when these determinants are considered singly.

8. An excess of FM over M.

9. An excess of CF+C over FC.

10. A number of M+FM+m of 0.4 and a M+FM+m% of 0.9.

11. A number of FC+CF+C of 1.0 and a FC+CF+C% of 9.5.

12. An A+Ad of 5.5 and an A+Ad% of 45.5.

13. An H+Hd of 1.0 and an H+Hd% of 8.5.

14. A number of content categories of 5.0. The content categories used in order of frequency were: animal (A), object (Obj.), animal detail (Ad), plant (Pl), human (H), nature (N), human

detail (Hd), architecture (Arch.), fire, anatomy (At.), water and clouds.

15. A P of 1.5 and a P% of 12.0. Of the Klopfer and Kelley populars only four were given frequently enough to meet the usual criterion for populars.

16. An O of 1.0 and an O% of 7.5.

17. A number of rejections of 0.

18. A number of remarks of 1.2.

19. A number of quarter turns of the cards of 1.4.

Comparisons were made between the results of this study of children of average intelligence and Ford's results on superior children of approximately the same age. Comparisons were also made between the results of this study and Ledwith's results on children who were approximately a year older but of the same intelligence level.

REFERENCES

Bell, J. E. 1948. *Projective Techniques.* New York: Longmans, Green, and Co.

Cronbach, Lee J. 1949. Statistical Methods Applied to Rorschach Scores: A Review. *Psych. Bull., 46,* 393-429.

Dictionary of Occupational Titles, 1939. Part II, Titles and Codes, U. S. Gov't Printing Office, Washington.

Ford, Mary. 1946. *The Application of the Rorschach Test to Young Children.* Minneapolis: The University of Minnesota Press.

Hertz, Marguerite H., and Ebert, Elizabeth H. 1944. The Mental Procedure of 6 and 8 year old children as Revealed by the Rorschach Inkblot Method. *Ror. Res. Exch., 8,* 10-30.

Kay, Lillian W., and Vorhaus, Pauline G. 1943. Rorschach Reactions In Early Childhood, Part II, Intellectual Aspects of Personality Development. *Ror. Res. Exch., 7,* 71-77.

Klopfer, B., and Kelley, D. M. 1942. *The Rorschach Technique.* Yonkers: World Book Co.

Klopfer, B., and Margulies, Helen. 1941. Rorschach Reactions In Early Childhood. *Ror. Res. Exch., 5,* 1-23.

Labor Force Characteristics of the San Francisco-Oakland, Cal. Metropolitan District: Department of Commerce, Bureau of the Census; April, 1947.

Ledwith, Nettie H. 1949. The Performance of Six Year Old Children on the Rorschach Ink Blot Test: A Normative Study. *Univ. of Pitt. Bull., No. 8,* 1-6.

McLeod, Hugh A. 1950. Rorschach Study with Pre-School Children. *Jour. of Proj. Tech., 4,* 453-463.

Mons, W. 1948. *Principles and Practices of the Rorschach Personality Test.* Philadelphia: J. B. Lippencott Co.

Paulson, Alma. 1941. Rorschach Records of School Beginners. *Ror. Res. Exch., 5,* 24-29.

Rapaport, D., Gill, M., and Schafter, R. 1946. *Diagnostic Psychological Testing: the Theory, Statistical Evaluation, and Diagnostic Application of a Battery of Tests. Vol. II.* Chicago: Year Book.

Sunne, Dagny. 1936-37. Rorschach Test Norms of Young Children. *Child Devel., 7-8,* 304-313.

Swift, Joan W. 1945. Rorschach Responses of 82 Preschool Children. *Ror. Res. Exch., 2,* 74-84.

Thompson, J. M. 1950. The Relationship Between Intelligence as Indicated by the Stanford-Binet and Certain Rorschach Variables in Kindergarten Children. Unpublished M. A. Thesis. San Jose State College.

Vorhaus, Pauline G. 1944. Rorschach Reactions in Early Childhood, Part III, Content and Details in Preschool Records. *Ror. Res. Exch., 8,* 71-91.

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BOOK REVIEW

Pascal, G. R., and Suttell, B. J.: *The Bender-Gestalt Test Quantification and Validity for Adults.* New York: Grune & Stratton, 1951, pp. xiii+274.

This book elaborates the senior author's "objective" scoring ideas for this instrument. It presents reliability, validity and clinical findings gleaned from applying that method to questions of differences in sex, age, education, intelligence, organic brain integrity, primary neurosis and primary psychosis. The book is carefully sectioned into generally objectively and tersely written discussions on quantification, clinical applications and scoring. Example reproductions of individual designs and total records are generous. The publisher's format is excellent, though the Index is too brief. Errors are few and minor.

The Scoring System. Design A of the instrument is not scored except for page placement. The remaining eight designs and the total record are "inspected" for the possible presence of 105 differentially weighted scorable items. These items are defined verbally and by adequate examples. The results are recorded on a simplified score sheet easily reproducible by mimeograph. Total weighted "raw" scores for each design are themselves totaled, and the final sum then converted from given tables to a standard score, depending upon whether the examinee was high school or college educated. Scoring time for the initiated is listed at both three minutes and at five minutes. The system was found reliable when used by its originators and when certain "cautions" were observed.

Quantification Data and Their Interpretation. Scorable items making up the total score cover intra- and inter-design consistency, reasonable design reproduction quality, and methods of work discernible in the reproductions only. A majority of the "favorites" are missing, probably victims of the statistical analysis. The authors appear to be on very shaky grounds statistically, by the way, since they employed contingency methods on data that, by definition, frequently approximate a "J" curve distribution. Levels of significance are next to meaningless in those cases.

The maximum twenty-four hour test-retest reliability found was .71. This seems to be unsatisfactory for a single score instrument. It reflects, however, the variability in the behavior patterns elicited by these stimuli. If this lability were the personality characteristic sought for interpretative significance, then this coefficient would be an excellent indicator of validity.

The authors' method is a single score procedure, and thereupon burdens itself with tremendous interpretative limitations. In fairness, it should be noted that the inadequacies of the Bender stimulus situations themselves tend to force such an approach. All expressive behavior with a high cultural component such as handwriting, gait, and voice in which the individual reproduces widely accepted behavior patterns, is limited in the reliability and validity with which it depicts a variety of basic aspects of personality organization. We are being forced to recognize that predictive accuracy comes only

with wide sampling of various avenues of expression. As a result of using the single score this method falls into the list of screening devices or categorizing instruments where the cutting scores suggest non-patient, patient neurosis, treatable psychosis and non-treatable psychosis. It might be termed a "performance type objective personality test." This limits its use to the industrial psychologist or clinical psychologist working in group situations where he has little time for administration and interpretation. The authors are aware of this potential evaluation, but choose to reject it. This reviewer cannot, however, see that they have been able to make their case that the method makes a *substantial* contribution to every psychological test battery.

Chapter 7 contains some interesting data, but its general quality is far beneath that of the other chapters. Space will not permit full substantiation of this statement; however, the following seem pertinent:

(1) Twelve children with psychogenic problems produced B-G raw scores significantly different from non-problem children. This may mean the procedure picked out disturbances in expressive behavior related to their psychogenic symptomatology.

(2) Stanford-Binet M.A.'s, not I.Q.'s, should have been used in correlations with B-G raw scores and with C.A. in children.

(3) Table 8, the composite focus for the chapter, is not understandable. It is not logical to find, for example, 32 cases of Distortions of All Designs when the N is only 20, or 88 cases of Working Over All Designs when the N is 46.

(4) It is not logical to emphasize throughout this book the interpretative value of the objective single score, even with its questionable reliability, and then suddenly draw rather sweeping conclusions as to the presence of psychogenic or of organic brain disorders in children and adults on the basis of subjective judgments of inadequately tested deviations found in each design. Especially is this true when such influences as C.A., intelligence, psychogenic conditions and organic conditions have *not* been controlled adequately in the normal group. This reviewer further rebels against the logic that since a child tests mentally deficient on the Stanford-Binet he therefore has organic brain cortex damage.

It has been said that the Bender stimulus figures elicit and this scoring procedure depicts, with reliability, "lability" or degrees of "variability" of performance in this avenue of expressive behavior. This characteristic has been shown to be related to age, education, organic brain integrity, very gross intellectual levels, and possibly artistic creativity. What is its significance in terms of autonomic nervous system lability, frontal lobe inhibitory control, flexibility in good quality of ideation, free floating anxiety? Why not seek out adequate criteria for these personality characteristics, and meaningfully relate to *them* data obtained from the procedure described in this book? Barren classification categories are no longer productive criteria.

This book depicts a solid advance in dealing with this instrument. For the time being it would appear to have restricted applicability.

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THE TAT NEWSLETTER

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Annual Bibliographic Issue: The literature on the TAT has continued to grow so rapidly that this year's bibliographic haul takes up an alarming amount of space. These introductory remarks will be brief, therefore. The main point to make is that the same system used last year has been followed again, and it seems to work pretty well. Only one category had to be added: "I. g.," for a couple of studies on the effect of color in TAT pictures. If the conventions of classification and cross-reference are not self-explanatory, then, please look up reference No. 592; it's all explained there.

Just to document the TAT's growth, here is a revision of the set of figures printed in last year's supplement, giving cumulative totals of references in the first five sections for the last six years. The total for 1946 is the same as before, because no new references were discovered that carried a date before 1947.

'46	'47	'48	'49	'50	'51
35	47	56	62	77	76

Since no less than 24 new references from 1950 turned up in this year's search, it seems likely that the eventual total for 1951 will be a good deal higher still. As before, you are invited to scrutinize the list for omissions, misclassifications, and other kinds of errors, and send them in for next year's supplement.

Send them in, that is, along with all other correspondence relating to the TAT Newsletter, to Ed ("MAPS test") Shneidman, Neuropsychiatric Hospital, Wilshire and Sawtelle Blvds., Los Angeles 25, California. For with the completion of Volume V, I am turning the editorship over to his capable hands. It was Ed who first had the idea of getting the Newsletter into the JPT, and who helped a lot in bringing about the merger. I'll be hovering in the wings for awhile, no doubt, to prompt my five-and-a-half-year-old if he stutters, or to offer consultation to the new coach if he wants it. Most of the Newsletter's files and the small stockpile of Clearing House information will also be sent to Ed, though I'll be glad to continue to offer advice about TAT research to anyone who wants it. Being editor has been a lot of fun, with enough gratifications to more than outweigh the headaches, but I think I've done it long enough. Take it away, Ed!

TAT BIBLIOGRAPHY: SUPPLEMENT FOR 1951

I. PRINCIPAL REFERENCES

a. *The test and manuals: discussions of administration, scoring and interpretation.*

490. BELLAK, Leopold. *A guide to the interpretation of the Thematic Apperception Test.* (Revised). New York: Psychological Corporation, 1951. (Supersedes No. 7).

491. BELLAK, Leopold. *Bellak TAT Blank: for recording and analyzing Thematic Apperception Test Stories.* (Revised). New York: Psychological Corporation, 1951. (Supersedes No. 8).

492. ERON, Leonard D. and RITTER, Anne M. A comparison of two methods of administration of the Thematic Apperception Test. *J. consult. Psychol.*, 1951, *15*, 55-61.

493. ERON, Leonard D., TERRY, Dorothy, and CALLAHAN, Robert. The use of rating scales for emotional tone of TAT stories. *J. consult. Psychol.*, 1950, *14*, 473-478.

494. GUERRA, Alfredo. El test de aperceptión temática (T.A.T.) como paradigma de los méthodos projectivos. Pp. 49-78 in *Congrès International de Psychiatrie, 1950, II. Psychiatrie Clinique. Application des Méthodes de Tests Mentaux.* Paris: Hermann, 1950. Pp. 276.

495. HOLT, Robert R. The Thematic Apperception Test. Pp. 181-229 in Anderson, Harold H. and Anderson, Gladys L. (eds.) *Introduction to projective techniques.* New York: Prentice-Hall, 1951. Pp. xxiv, 720.

496. MURRAY, Henry A. Uses of the Thematic Apperception Test. *Amer. J. Psychiat.*, 1951, *107*, 577-581.

497. MURRAY, Henry A. Chapter on the TAT in *Manual for Military Clinical Psychologists (TM 8-242.)* Washington: U. S. Government Printing Office, 1951.

498. OMBREDANE, ... Chapter on the TAT in Klages, Ludwig, et al., *Le diagnostic du caractère* (The analysis of character). Paris: Presses Universitaires de France, 1949. Pp. viii, 266.

499. SHNEIDMAN, Edwin S., with the collaboration of JOEL, Walther and LITTLE, Kenneth B. *Thematic test analysis.* New York: Grune & Stratton, 1951. Pp. xi, 320. (With chapters on TAT and MAPS test analysis by Magda Arnold, Betty Aron, Leopold Bellak, Leonard Eron, Reuben Fine, A. Arthur Hartman, Robert R. Holt, Walther Joel and David Shapiro, Seymour Klebanoff, Sheldon Korchin, Jose I. Lasaga, Julian B. Rotter and Shirley Jessor, Helen D. Sargent, Percival M. Symonds, and Ralph K. White.) (Supersedes No. 382.)

500. STERN, E. *Le Test d'Aperception Thématique de Murray (TAT).* (Murray's TAT). Neuchatel: Delachaux & Niestlé S.A., 1950. Pp. 155.

501. WATSON, Robert I. *The clinical method in psychology.* New York: Harpers, 1951. Pp. xii, 779. (See esp. Chapt. 16. The Thematic Apperception Test, pp. 436-523.)

502. WHITE, Ralph K. *Value analysis, the nature and use of the method.* Society for the Psychological Study of Social Issues, 1951. Pp. 87.

503. ZUBIN, Joseph. *Quantitative techniques and methods in abnormal psychology.* New York: Columbia University Bookstore, 1950.

[See also: 508, 639, 640.]

b. *Normative studies.*

504. GLAD, Donald D. and HAMMACK, Barbara W. An intertest validation and normative study of the Rorschach and TAT with schizophrenia. *J. Colo.-Wyo. Acad. Sci.*, 1950, *4*, 65-66. —Abstract.

[See also: 602, 645, 651.]

c. *Research studies on mechanisms involved in TAT responses.*

505. BIJOU, Sidney W. and KENNY, Douglas T. The ambiguity values of TAT cards. *J. consult. Psychol.*, 1951, *15*, 203-209.

506. BRACKBILL, Glen A. and BRACKBILL, Betty J. Some effects of age on TAT stories. *Amer. Psychologist*, 1951, *6*, 351. —Abstract.

507. CRANDALL, Vaughn J. Induced frustration and punishment-reward expectancy in thematic apperception stories. *J. consult. Psychol.*, 1951, *15*, 400-404.

508. ERIKSEN, Charles W. Some implications for TAT interpretation arising from need and perception experiments. *J. Personality*, 1951, *19*, 282-288.

509. WITTENBORN, J. Richard, and ERON, Leonard D. An application of drive theory to TAT responses. *J. consult. Psychol.*, 1951, *15*, 45-50.

510. ZUCKERMAN, Marvin. The effect of threat on perceptual affect in a group. *J. abnorm. soc. Psychol.*, 1951, *46*, 529-533.

[See also: 504, 544, 622, 637, 639, 654, 657, 659, 662]

d. *Studies of reliability and validity.*

511. LEUNBACH, B. and FLACHS, A. TAT's kliniske validitet. (Clinical validity of the TAT). *Nord. med.*, 1950, *44*, 1665-1668.

512. VERNIER, Claire M. and KENDIG, Isabelle V. Analysis of the relationships between various measures of creative productivity in two projective tests. *Amer. Psychologist*, 1951, *6*, 349. —Abstract.

[See also: 637, 641, 658]

e. *Use in psychotherapy.*

513. MUENCH, George A. The application of diagnostic psychological methods to counseling and psychotherapy. Pp. 53-72 in *Recent advances in diagnostic psychological testing*. Springfield, Ill.: Thomas, 1950. Pp. x, 120.

514. SCHNECK, Jerome M. Hypnoanalysis, hypnotherapy, and Card 12M of the Thematic Apperception Test. *J. gen. Psychol.*, 1951, *44*, 293-302.

[See also: 496, 621, 643]

f. *Thompson modification for Negroes.*

515. SCHWARTZ, Emanuel K., REISS, Bernard F. and COTTINGHAM, Alice. Further critical evaluation of the Negro version of the TAT. *J. proj. Tech.*, 1951, *15*, 394-400. (Supersedes No. 399.)

[See also: 616]

g. *Effects of colored pictures.*

516. BRACKBILL, Glen A. Some effects of color on thematic fantasy. *J. consult. Psychol.*, 1951, *15*, 412-418.

517. THOMPSON, Charles E. and BACHRACH, Arthur J. The use of color in the Thematic Apperception Test. *J. proj. Tech.*, 1951, *15*, 173-184.

II. Research Studies Using the TAT

a. *Clinical applications to pathological groups.*

518. BEIER, Ernst G., GORLOW, Leon and STACEY, Chalmers L. The fantasy life of the mental defective. *Amer. J. ment. Defic.*, 1951, *55*, 582-589.

519. DESCLAUX, P., SOULAIRAC, A., and BOYER, S. Le "Thematic Apperception Test" chez les enfants arriérées. (Use of the TAT with retarded children). *Enfance*, 1951, *4*, 124-145.

520. DIANA, Pearl B., McLAUGHLIN, James T., ZABARENKO, Ralph N., and QUINN, Beatta. Sex differences in socio-psychological patterns among rheumatoid arthritis patients: preliminary report. *J. proj. Tech.*, 1951, *15*, 420. —Abstract.

521. SEWARD, Georgene, MORRISON, Lester and FEST, Beverly. Personality structure in a common form of colitis. *Psychol. Monogr.*, 1951, *65*, No. 1. Pp. v, 26. (Supersedes No. 95).

522. SLACK, Charles W. Some intellective functions in the Thematic Apperception Test and their use in differentiating endogenous feeble-mindedness from exogenous feeble-mindedness. *Train. Sch. Bull.*, 1950, *47*, 156-169.

[See also: 504, 534, 632, 636, 652, 661]

b. *Studies in the selection of personnel.*

523. HENRY, William E. and GARDNER, Burleigh B. Personality evaluation in the selection of executive personnel. *Pub. Personnel Rev.*, 1949, *10*, 67-71.

524. ROCK, Milton L. and HAY, Edward N. Investigation of the use of tests as a predictor of leadership and group effectiveness in a job evaluation situation. *Amer. Psychologist*, 1951, *6*, 360..—Abstract.

[See also: 547, 590, 649, 650]

c. *Studies of personality in non-clinical groups.*

525. HARLOW, Robert G. Masculine inadequacy and compensatory development of physique. *J. Personality*, 1951, *19*, 312-323.

526. ROE, Anne. A psychological study of physical scientists. *Genet. Psychol. Monogr.*, 1951, *43*, 121-239.

[See also: 657]

d. *Studies of specific psychological functions.*

527. ALEXANDER, Theron. A study of perception as influenced by conflict. *Amer. Psychologist,* 1951, *6,* 312.—Abstract.

528. CALIGOR, Leopold. The determination of the individual's unconscious conception of his own masculinity-femininity identification. *J. proj. Tech.,* 1951, *15,* 494-509.

529. FAURE, Jacques. Méthode d'évocation de potentiels bio-électriques cérébraux par l'image chez le névropathe. (Method of eliciting bio-electric cerebral potentials from a neuropath by use of pictures.) *J. méd. Bordeaux,* 1950, *127,* 810-813.

530. FAURE, Jacques. Évocation de potentiels bioélectriques cérébraux par l'image chez l'homme névrosé; présentation de tracés. (Elicitation of cerebral bio-electric potentials by image in neurosis; presentation of EEG graphs.) *Rev. Otoneur.,* 1951, *23,* 25-29.

531. FESHBACH, Seymour. The drive reducing function of fantasy behavior. *Amer. Psychologist,* 1951, *6,* 315.—Abstract.

532. FISHER, Seymour, and HINDS, Edith. The organization of hostility controls in various personality structures. *Genet. Psychol. Monogr.,* 1951, *44,* 3-68.

533. FISHER, Seymour, and FISHER, Rhoda L. Unconscious conception of parental figures as a factor influencing perception of time. *Amer. Psychologist,* 1951, *6,* 316.—Abstract.

534. FITZGERALD, Don C. Success-failure and TAT reactions of orthopedically handicapped and physically normal adolescents. *Personality,* 1951, *1,* 67-83.

535. GROSSMAN, David. The construction and validation of two insight inventories. *J. consult. Psychol.,* 1951, *15,* 109-114.

536. HAYS, William, GELLERMAN, Saul, and SLOAN, William. A study of the relationship between the verb-adjective quotient and the Rorschach experience balance. *J. clin. Psychol.,* 1951, *7,* 224-227.

537. HOLT, Robert R. An inductive method of analyzing defenses for self-esteem. *Bull. Menninger Clinic,* 1951, *15,* 6-15.

538. LINDZEY, Gardner, and RIECKEN, Henry W. Inducing frustration in adult subjects. *J. consult. Psychol.,* 1951, *15,* 18-23.

539. McCLELLAND, David C. Measuring motivation in phantasy: the achievement motive. Pp. 191-205 in Guetzkow, Harold S. (ed.) *Groups, leadership and men.* Pittsburgh, Pa.: Carnegie Press, 1951. Pp. ix, 293.

[See also: 629, 630, 631, 634, 635, 636, 638, 645, 655, 659, 660, 663, 693]

e. *Studies of the effects and effectiveness of treatment methods.*

540. CARLSON, Hilding B. and VANDEVER, Marguerite G. The effectiveness of directive and non-directive counseling in vocational problems as measured by the T.A.T. test. *Educ. psychol. Measmt.,* 1951, *11,* 212-223.

541. RUJA, David H. Personality changes following prefrontal lobotomy in twenty-five schizophrenic patients. *Amer. Psychologist,* 1951, *6,* 499.—Abstract.

542. SIEGEL, Miriam G., SACKLER, Mortimer D., SACKLER, Arthur M., SACKLER, Raymond R., and VAN OPHUIJSEN, Johan H.W. Improvement in schizophrenics following histamine and steroid therapy as revealed in psychological tests. (Part IV. of Endocrinologic orientation to psychiatric disorders.) *J. clin. exp. Psychopathol.,* 1951, *12,* 25-29.

[See also: 514]

f. *Social-psychological problems.*

543. RADKE-YARROW, Marian and LANDE, Bernard. Personality variables and reactions to minority group belonging. *Amer. Psychologist,* 1951, *6,* 329-330.—Abstract.

544. RAUTMAN, Arthur L. and BROWER, Edna. War themes in children's stories: II. Six years later. *J. Psychol.,* 1951, *31,* 263-270.

545. ROSE, Alvin W. Projective techniques in sociological research. *Soc. Forces,* 1949, *28,* 175-183.

546. SARNOFF, Irving. Identification with the aggressor: some personality correlates of anti-Semitism among Jews. *Amer. Psychologist,* 1951, *6,* 319-320.—Abstract.

[See also: 547, 618, 625, 644]

g. *Anthropological studies.*

547. HENRY, William E. The Thematic Apperception Technique in the study of group and cultural problems. Pp. 230-278 in Anderson, Harold H. and Anderson, Gladys L. (eds.) *Introduction to projective techniques.* New York: Prentice-Hall, 1951. Pp. xxiv, 720.

[See also: 646, 648]

h. *Studies in which TAT is used to provide criterion to validate other tests.*

548. SECORD, Paul F. Studies of the relationship of handwriting to personality. *J. Personality,* 1949, *17,* 430-448.

III. Case Studies Using the TAT

a. *With interpreted protocols.*

549. CAHEN, Eleanor R. A transitory psychotic episode in a man following the accidental death of his wife. *Case Rep. clin. Psychol.,* 1951, *2,* 42-50.

550. DOORBAR, Ruth. Chronic delinquency in a thirteen-year-old girl. *Case Rep. clin. Psychol.,* 1951, *2,* 35-48.

551. ELLIS, Albert. A young woman convicted of manslaughter. *Case Rep. clin. Psychol.,* 1951, *2,* 3-34.

552. GURVITZ, Milton S. *The dynamics of psychological testing.* New York: Grune & Stratton, 1951. Pp. xii, 368.

553. HAHN, Fred. Psychosis in a person of limited intellectual endowment. *Case Rep. clin. Psychol.,* 1951, *2,* 60-68.

554. FROMM, Erika O. and ELONEN, Anna S. The use of projective techniques in the study of a case of female homosexuality. A case study. *J. proj. Tech.,* 1951, *15,* 185-230.

555. HOLT, Robert R. Psychological tests. Pp. 377-413 in Devereux, George, *Reality and dream, psychotherapy of a plains Indian.* New York: International Univ. Press, 1951. Pp. xxiii, 438.

556. HOLZBERG, Jules D. Withdrawal in an early adolescent. *Case Rep. clin. Psychol.,* 1951, *2,* 5-15.

557. HOLZBERG, Jules D., CAHEN, Eleanor R., and WILK, Edward K. Suicide, a psychological study of self-destruction. *J. proj. Tech.,* 1951, *15,* 339-354.

558. McCLELLAND, David C. *Personality.* New York: Wm. Sloane, 1951. Pp. xvi, 654.

559. PASCAL, Gerald R. and ZEAMAN, Jean B. Measurement of some effects of electro-convulsive therapy on the individual patient. *J. abnorm. soc. Psychol.,* 1951, *46,* 104-115.

560. POSNER, Rita. A decompensating obsessive-compulsive neurosis. *Case Rep. clin. Psychol.,* 1951, *2,* 69-79.

561. SUESSMILCH, Frederick L. A long-term maladjustment culminating in catatonic episodes during adolescence. *J. proj. Tech.,* 1951, *15,* 461-480.

562. WEXLER, Murray. A diagnostic and therapeutic study of a schizophrenic woman. *Case Rep. clin. Psychol.,* 1951, *2,* 16-27.

563. ZEICHNER, Abraham M. Alcoholism as a defense against social isolation. *Case Rep. clin. Psychol.,* 1951, *2,* 51-59.

[See also: 499]

b. *Without full TAT protocols.*

564. BARBOZA, Maria L. A case of childhood schizophrenia. *Case Rep. clin. Psychol.,* 1950, *1,* 3-9.

565. FRENKEL-BRUNSWIK, Else. Patterns of social and cultural outlook in children and parents. *Amer. J. Orthopsychiat.,* 1951, *21,* 543-558.

566. HANFMANN, Eugenia. The life history of an ex-alcoholic. With an evaluation of factors involved in causation and rehabilitation. *Quart. J. Stud. Alcohol,* 1951, *12,* 405-443.

567. JUZAK, Tatania. Study of a catatonic female. *Case Rep. clin. Psychol.,* 1950, *1,* 24-30.

568. LEAN, Marjorie. Short term therapy in a disturbed adolescent boy—psychological evaluation. *Case Rep. clin. Psychol.,* 1950, *1,* 17-23.

569. MARTHINSEN, R. Om Thematic Apperception Test (TAT). (On the TAT). *Ugeskr. Laeg.,* 1949, *111* (25), 691-695.

570. RECHOUX, R. and HUGONOT, R. Le rôle des tests de projection à l'occasion de la prise d'une observation psychologique. (The importance of projective tests in the psychological examination.) *Ann. méd. psychol.,* 1948, *1,* 191-197.

571. ROMAN, Melvin. Adolescent accentuation of maladjustment in a chronic personality deviate. *Case Rep. clin. Psychol.,* 1950, *1,* 40-43.

572. STEINBERG, Dave. A schizophrenic child. *Case Rep. clin. Psychol.,* 1950, *1,* 37-41.

573. WEXLER, Rochelle. A case of paranoia erotica and/or schizophrenia. *Case Rep. clin. Psychol.,* 1950, *1,* 62-69.

574. ZURING, J. Een geval van intersexualiteit. (A case of intersexuality.) *Geneesk. Gids,* 1950, *28,* 445-450.

[See also: 420, 537, 621]

IV. Theoretical and Methodological Studies of Projective Tests, Including the TAT

575. AINSWORTH, Mary D. Some problems of validation of projective techniques. *Brit. J. med. Psychol.,* 1951, *24,* 151-161.

576. HUTT, Max L. The assessment of individual personality by projective tests: Current problems. *J. proj. Tech.,* 1951, *15,* 388-393.

577. MacFARLANE, Jean W. and TUDDENHAM, Read D. Problems in the validation of projective techniques. Pp. 26-54 in Anderson, Harold H. and Anderson, Gladys L. (eds.) *Introduction to projective techniques.* New York: Prentice-Hall, 1951. Pp. xxiv, 720.

578. ROSENZWEIG, Saul. Idiodynamics in personality theory with special reference to projective methods. *Psychol. Rev.,* 1951, *58,* 213-223.

579. ZUBIN, Joseph. Test construction and methodology. Pp. 99-120 in *Recent advances in diagnostic psychological testing.* Springfield, Ill.: Thomas, 1950. Pp. x, 120.

580. ZUBIN, Joseph. Objective evaluation of personality tests. *Amer. J. Psychiat.,* 1951, *107,* 569-576.

V. Surveys, Summary Articles and Brief Reports About Clinical Uses of the TAT

581. BEIZMANN, C. Application des méthodes des tests mentaux à la psychiatrie clinique. (Application of mental test methods in clinical psychiatry.) *Ann. méd. Psychol.,* 1950, *2,* 269-271.

582. BLEULER, Manfred. Les tests de projection en clinique psychiatrique. Pp. 1-47 in *Congrès International de Psychiatrie, 1950, II. Psychiatrie Clinique. Application des Méthodes de Tests Mentaux.* Paris: Herman, 1950. Pp. 276.

583. BÖSZÖRMÉNYI, Z., HALÁSZ, J. and KRAFT, F. Új projectiós személyiségvizsgálati módszer és annak jelentösége a psychiatriában. (The TAT and its importance in psychiatry.) *Orvosi Hetilap,* 1948, *89,* 390-394.

584. CHALLMAN, Robert C. Clinical methods: psychodiagnostics. Pp. 239-258 in Stone, Calvin P. and Taylor, Donald W. (eds.) *Annual review of psychology, Vol. II.* Stanford, Calif.: Annual Reviews, 1951. Pp. ix, 389.

585. CRONBACH, Lee J. *Essentials of psychological testing.* New York: Harper's, 1949. Pp. xiii, 475.

586. FREEMAN, Frank S. *Theory and practice of psychological testing.* New York: Holt, 1950. Pp. xxi, 518.

587. FRIGHI, L. and REDA, G. C. Il Thematic Apperception Test di Murray (Murray's TAT). *Riv. sper. freniat.,* 1950, *74,* 445-451.

588. GOETSCHEL-ALPHEU, N. O teste de apercepcáo temática (T.A.T.). Um instrumento de pesquisa na psicologia individual. (The TAT, an analytic method in individual psychology.) *Rev. Brasil. Med.,* 1947, *4,* 650-651.

589. HALPERN, Florence. Projective tests in the personality investigation of children. *J. Pediatrics,* 1951, *38,* 770-775.

590. HENRY, William E. Identifying the potentially successful executive. *Amer. Mgmt. Ass. Personnel Ser.,* 1949, *127,* 14-20.

591. HOLT, Robert R. (ed.) *The TAT Newsletter, 4,* No. 4; *5,* Nos. 1, 2, 3; in *J. proj. Tech.,* 1951, *15,* 115-123, 281-287, 410-414, 537-544.

592. HOLT, Robert R. TAT bibliography: supplement for 1950. *TAT Newsletter,* 1951, *4,* 3-9; also *J. proj. Tech.,* 1951, *15,* 117-123.

593. HUNT, Howard F. Clinical methods: psychodiagnostics. *Annual Rev. Psychol.,* 1950, *1,* 207-220.

594. LACHANAT, ..., BOURJADE, ..., COLIN, ... and MASSIÈRE, ... Méthodes d'exploration de l'affectivité chez l'enfant. (Methods of studying affectivity in the child.) *Pédiatrie,* 1951, *6,* 417-433.

595. MERTENS, C. Les tests pour adultes, tels q'ils sont pratiqués dans differentes cliniques londoniennes. (Tests for adults, as used at various London clinics.) *Acta neurol. psychiat. Belg.,* 1949, *49,* 318-326.

596. PICHOT, P. Applications des méthodes de tests mentaux à la psychiatrie clinique. (Applications of mental test methods in clinical psychiatry). *Ann. méd. psychol.,* 1950, *2,* 75-90.

597. POROT, M. Intérêt médical de la psychotechnique et des méthodes psychobiométriques. III. Les tests projectifs. (Medical value of psychotechnics and psychobiometric methods. III. Projective tests.) *Algérie méd.,* 1951, *55,* 597-605.

598. REICHARD, Suzanne. Some contributions of psychological tests to therapeutic planning. *Amer. J. Orthopsychiat.,* 1951, *21,* 532-541.

599. SMITH, Jackson A., BROWN, Warren T., and THROWER, Florence L. The use of a modified Thematic Apperception Test in a neuropsychiatric clinic in a general hospital. *Amer. J. Psychiat.,* 1951, *107,* 498-500.

600. STERN, E. Neure experimentelle Methoden zur Untersuchung der Affektivität und des Charakters. (Modern experimental methods for the study of affectivity and character). *Fortschr. Neurol. Psychiat. Stuttgart,* 1950, *18,* 469-511.

VI. Abstracts of References Listed Elsewhere in the Bibliography.

(74, 95, 382, 399)

601. ATKINSON, John W. Studies in projective measurement of achievement motivation. *Microfilm Abstr.,* 1950, *10* (4), 290-291.—Abstract. See No. 630.

602. FLEMING, Edith E. A descriptive analysis of responses in the Thematic Apperception Test. *J. proj. Tech.,* 1950, *14,* 327. —Abstract. See No. 473.

603. SAMUELS, Henry. An analysis of some factors affecting ratings of personality traits based on projective techniques. *Microfilm Abstr.,* 1950, *10* (4), 305-307. —Abstract. See No. 658.

604. SHNEIDMAN, Edwin, JOEL, Walther, and LITTLE, Kenneth. An empirical categorization of psychological test report items. *Amer. Psychologist,* 1951, *6,* 492. —Abstract. See No. 499.

605. WEINBERG, Henry. An investigation of unconscious conflict in cases of peptic ulcer. *Amer. Psychologist,* 1951, *6,* 337. —Abstract. See No. 661.

VII. Closely Related Techniques

606. ALBRIGHT, Robert W. and ALBRIGHT, Joy B. Chain associations of preschool children to picture stimuli. *J. genet. Psychol.,* 1951, *79,* 77-93.

607. AMMONS, Robert B., BUTLER, Margaret N. and HERZIG, Sam A. *Vocational Apperception Test.* Louisville, Ky.: Southern Univ. Press, 1951. 18 plates and manual, pp. 7.

608. ANDREW, Gwen, WALTON, Ralph E., HARTWELL, Samuel W. and HUTT, Max L. The Michigan Picture Test: the stimulus values of the cards. *J. consult. Psychol.*, 1951, *15*, 51-54.

609. BACHRACH, Arthur J. Personality test for the handicapped. *Crippled Child*, 1949, *27* (4), 18-19.

610. BLUM, Gerald S. *The Blacky Pictures.* New York: Psychological Corp., 1950. 12 plates, 2 books of inquiry cards, manual, pp. 24; record blank.

611. CRESSAC, Mary. Test du conte à terminer dans une classe de sixième nouvelle. (Story completion test in a 6th grade class.) *Psyché*, 1950, *5*, 732-742.

612. FIELDING, Benjamin B. A "Story Completion" for use with the physically handicapped. *J. proj. Tech.*, 1951, *15*, 299-306.

613. GOLDENBERG, Herbert C. A resumé of some Make-A-Picture-Story (MAPS) test results. *J. proj. Tech.*, 1951, *15*, 79-86.

614. GUREVITZ, Saul and KLAPPER, Zelda S. Techniques for and evaluation of the responses of schizophrenic and cerebral palsied children to the Children's Apperception Test. (C.A.T.) *Quart. J. Child Behavior*, 1951, *3*, 38-85.

615. HARTWELL, Samuel W., HUTT, Max L., ANDREW, Gwen and WALTON, Ralph E. The Michigan Picture Test: Diagnostic and therapeutic possibilities of a new projective test in child guidance. *Amer. J. Orthopsychiat.*, 1951, *21*, 124-137.

616. HAVIGHURST, Robert J. and TABA, Hilda. *Adolescent character and personality.* New York: Wiley, 1949. Pp. x, 315.

617. HENRY, William E. and GUETZKOW, Harold. *Group Projection Sketches for the study of small groups.* Ann Arbor: Univ. of Michigan Press, 1949. Manual (mimeographed, cf. No. 618) and 5 pictures.

618. HENRY, William E. and GUETZKOW, Harold. Group projection sketches for the study of small groups. *J. soc. Psychol.*, 1951, *33*, 77-102.

619. HEPPELL, H. K. and RAIMY, Victor C. Projective pictures as interview devices. *J. consult. Psychol.*, 1951, *15*, 405-411.

620. HOLZBERG, Jules D., and POSNER, Rita. The relationship of extrapunitiveness on the Rosenzweig Picture-Frustration Study to aggression in overt behavior and fantasy. *Amer. J. Orthopsychiat.*, 1951, *21*, 767-779.

621. LeSHAN, Eda, and LeSHAN, Lawrence. Projection technique in social case work procedure. *Amer. J. Orthopsychiat.*, 1948, *18*, 73-91.

622. LINDNER, Harold. A study of perceptual sensitization in imprisoned sexual and non-sexual offenders. *Amer. Psychologist*, 1951, *6*, 333-334.—Abstract.

623. MORRIS, Woodrow W. Other projective methods. Pp. 513-538 in Anderson, Harold H. and Anderson, Gladys L. (eds.) *Introduction to projective techniques.* New York: Prentice-Hall, 1951. Pp. xxiv, 720.

624. PICKFORD, R. W. Personality and the interpretation of pictures: a new projection technique. *J. Personality*, 1948, *17*, 210-220.

625. SANFORD, Fillmore H. The use of a projective technique in attitude surveying. *Pub. Opin. Quart.*, 1950, *15*, 697-709.

626. TRAVIS, ... and JOHNSTON, ... *The Travis-Johnston Projection Test.* Glendale, Cal.: Griffin-Patterson, 1949. 88 pictures.

627. VAN LENNEP, D. J. The Four-Picture Test. Pp. 149-180 in Anderson, Harold H. and Anderson, Gladys L. (eds.) *Introduction to projective techniques.* New York: Prentice-Hall, 1951. Pp. xxiv, 720.

628. VAN LENNEP, D. J. Chapter on the Four Picture Test in *Manual for military clinical psychologists (TM 8-242).* Washington: U. S. Government Printing Office, 1951.

629. WALKER, Robert G. A comparison of clinical manifestations of hostility with Rorschach and MAPS test performances. *J. proj. Tech.*, 1951, *15*, 444-460.

[See also: 499, 547, 642, 646, 647, 649, 650, 652, 662.]

VIII. Unpublished References

630. ATKINSON, John W. Studies in projective measurement of achievement motivation. Univ. of Michigan, 1950. Unpublished Ph.D. thesis.

631. ARONSON, M. L. A study of the Freudian theory of paranoia by means of a group of psychological tests. Univ. of Michigan, 1950. Unpublished Ph.D. thesis.

632. BROIDA, Daniel C. An investigation of certain psychodiagnostic indications of suicidal tendencies and depression in mental hospital patients. Univ. of Syracuse, 1950. Unpublished master's thesis.

633. CALDWELL, Bettye McD. Psychological effects of sex hormone replacement in aged women. Washington University, 1951. Unpublished Ph.D. thesis.

634. CLARK, Russell A. Projective measurement of experimentally induced levels of sexual motivation. Yale Univ., 1951. Unpublished Ph.D. thesis.

635. COHEN, William J. Manifestations of differences in ego development in the Thematic Apperception Test. Western Reserve Univ., 1950. Unpublished Ph.D. thesis.

636. CONANT, J. C. A comparison of thematic fantasy among normals, neurotics, and schizophrenics. Univ. of Southern California, 1950. Unpublished Ph.D. thesis.

637. DIEPPA, Jorge J. and WEISSKOPF, Edith A. A study of experimentally induced "faking" of TAT responses. *Amer. Psychologist,* 1951, *6,* 505.—Title only.

638. FESHBACK, Seymour. Drive reducing function of fantasy behavior. Yale Univ., 1951. Unpublished Ph.D. thesis.

639. GARFIELD, Sol L., BLEK, L., and MELKER, F. The influence of method of administration, sex of examiner, and sex of subject on selected aspects of TAT stories. *Amer. Psychologist,* 1951, *6,* 505. —Title only.

640. GOODMAN, Morris I. Validation of a manual for Thematic Apperception Test analysis. Western Reserve Univ., 1951. Unpublished Ph.D. thesis.

641. GROTZ, Robert C. A comparison of Thematic Apperception Test stories and manifest dream narratives. Western Reserve Univ., 1950. Unpublished master's thesis.

642. HEPPELL, H. K. Selecting pictures to obtain fantasy material on a specific topic. Ohio State Univ., 1948. Unpublished master's thesis.

643. HIRE, A. W. Use of the Rorschach and Thematic Apperception tests in the counseling and guidance of college students. Harvard University, 1949. Unpublished Ph.D. thesis.

644. HORWITZ, Murray, and CARTWRIGHT, Dorwin. A projective method for the diagnosis of group properties. *Amer. Psychologist,* 1951, *6,* 511. —Title only. (Forthcoming in *Hum. Rel.*)

645. HOROWITZ, Milton J. Developmental changes in Rorschach test and Thematic Apperception Test performances of children, six through nine years of age: an exploratory study. Kansas Univ., 1952. Unpublished Ph.D. thesis.

646. JEWELL, Donald P. A Navaho Apperception Test as a psychocultural approach. Claremont Graduate School, 1951. Unpublished master's thesis.

647. KAAKE, Norma E. The relationship between intelligence level and responses to the Children's Apperception Test. Cornell Univ., 1951. Unpublished master's thesis.

648. KAPLAN, Bert. The modal personality hypothesis tested in four cultures. Harvard Univ., 1949. Unpublished Ph.D. thesis.

649. KESSLER, Jane W. A modification of the TAT used to investigate personality factors related to success in nursery school teaching. *Amer. Psychologist,* 1951, *6,* 506. —Title only.

650. KESSLER, Jane W. An investigation of personality factors related to success in nursery school teaching. Western Reserve Univ., 1951. Unpublished Ph.D. thesis.

651. KIEFER, Robert B. The Thematic Apperception Test pictures: a study of common stories as told by normal adult females. Univ. of Alberta, Edmonton, 1950. Unpublished master's thesis.

652. LINDNER, Harold. A study of imprisoned sexual and non-sexual offenders by means of the Blacky Pictures Test. *Amer. Psychologist,* 1951, *6,* 517. —Title only.

653. LOWELL, E. L. A methodological study of projectively measured achievement motivation. Wesleyan Univ., 1950. Unpublished master's thesis.

654. MONEY, Lester S. Jr., and WEISSKOPF, Edith A. The effect on projection of similarity between the subject and the central figure of TAT pictures. *Amer. Psychologist,* 1951, *6,* 505. —Title only.

655. PITTLUCK, Patricia. The relation between aggressive fantasy and overt behavior. Yale Univ., 1950. Unpublished Ph.D. thesis.

656. RAFF, Eleanor. Intrapsychic patterns of nursery-school children judged by their teachers to be best or worst adjusted in their group. Univ. of Chicago, 1951. Unpublished master's thesis.

657. RUBIN, Harry K. Effect of variation in structure upon projection in TAT. *Amer. Psychologist,* 1951, *6,* 505. —Title only.

658. SAMUELS, Henry. An analysis of some factors affecting ratings of personality traits based on projective techniques. Univ. of Michigan, 1950. Unpublished Ph. D. thesis.

659. STONE, A. A. The effect of sanctioned overt aggression on total instigation to aggressive responses. Harvard Univ., 1950. Unpublished undergraduate honors thesis.

660. VEROFF, J. A projective measure of the achievement motivation of adolescent males and females. Wesleyan Univ., 1950. Unpublished undergraduate honors thesis.

661. WEINBERG, Henry. An investigation of unconscious conflict in cases of peptic ulcer. Harvard Univ., 1951. Unpublished Ph.D. thesis.

662. WEISSKOPF, Edith and LYNN, David B. An experimental study of the effect of variations in ambiguity upon projection in the C.A.T. *J. proj. Tech.,* 1951, *15,* 538.—Title only.

663. ZATZKIS, J. The effect of the need for achievement on linguistic behavior. Wesleyan Univ., 1949. Unpublished master's thesis.

ERRATA

(The following references were incorrectly or incompletely cited in the 1950 Supplement; they should appear as follows:)

453. BACHRACH, Arthur J. and THOMPSON, Charles E. *Thematic Apperception Test, modification for the handicapped* (Experimental set). 23 plates (16 new or revised, 7 from the standard TAT); manual, pp. 6. Cleveland, Ohio: Society for Crippled Children, 1949.

469. CLARK, Russell A. and McCLELLAND, David C. A factor analytic integration of imaginative, performance, and case study measures of n Achievement. Unpublished ONR report.

GENERAL NEWSLETTER

Weil, Pierre G. Algumas consideracoes sobre o emprego do psicodiagnostico de Rorschach no exame de orientacao e selecao profissional. *Arquivas Brasilieros de psicotecnica,* 1951, *3,* 41-44. Use of Loosli-Usteri's scoring methods on the Rorschachs of executive and subordinate personnel in administrative services revealed a significantly high incidence of whole responses among the executives.

Schneider, Eliexer. O teste de classificacao de objetos do I.S.O.P. *Arquivos Brasilieros de psicotecnica,* 1951, *3,* 49-57. Data are presented and evaluated for four subjects on the I.S.O.P. object classification test, Mira Myokinetic Test, Rorschach, Thematic Apperception Test, tests of intelligence and interest, and interview material. It is suggested that the I.S.O.P. is suitable for the measurement of abstraction, personality, and vocational interests.

Pereira, Alfredo de O. Analise da variancia e sua aplicacao na pesquisa da constelacao familiar. *Arquivos Brasilieros de psicotecnica,* 1951, *3,* 23-40. Analysis of variance of Myokinetic records of 20 family groups reveals significant variance ratios between parts of the test. Such variables as aggressivity and extroversion were characteristic of particular families. A constitutional explanation is offered for differences in vitality and anxiety.

Pichot, P. Diagnostic differentièl de la schizophrénie par le test de Rorschach. (Formule Alpha de Piotrowski-Lewis). *Revue de Psychologie appliquée,* 1951, *4,* 275-278.

Kobler, A. L. Revue critique des recherches concernant la validité du test de Szondi. *Revue de Psychologie appliquée,* 1951, *4,* 279-288. Critical summary and evaluation of validation research on the Szondi. All references are American with the exception of Szondi's works. Six additional foreign references are appended by P. Pichot.

AN INTERNATIONAL RORSCHACH JOURNAL

From 1945 on, the publishing house of H. Huber in Berne, Switzerland, has been issuing at irregular intervals volumes of collected papers dealing with the Rorschach test or its applications under the title of *Rorschachiana.* These volumes appeared as supplements to the *Schweizerische Zeitschrift für Psychologie und ihre Anwendungen* (Swiss Journal of Pure and Applied Psychology), the organ of the Swiss Psychological Association. The re-establishment of at least limited possibilities for the international exchange of information and the growing interest in the Rorschach and related methods have led to the decision to bring out the *Rorschachiana* from 1952 on as a regular quarterly journal devoted to Rorschach research and other projective methods for the study of personality.

A strong stimulus thereto was given by the First International Rorschach Congress, called together by the Rorschach Commission of the Swiss Psychological Association, which met in 1949 in Zürich. The Congress voted to found an International Society for Rorschach and other projective methods and a journal correspond-

ing to the Society's aims. As a result of numerous organizational difficulties, the formal founding of the Society as a legal entity has not yet taken place, but will probably be consumated by the Assembly of Delegates planned for 1952 in Berne, Switzerland. In the meantime, the national delegates elected by the first Congress are functioning as a committee of organization with a smaller Swiss executive committee and have designated Dr. A. Friedemann, Fischerweg 6, Biel, Switzerland, as International Secretary. They have further charged the Rorschach Commission of the Swiss Psychological Association with the publication of a scientific periodical suitable to become the organ of the future Society. According to an agreement between the Rorschach Commission and the publishing house of Huber, the old *Rorschachiana* is to be supplanted by this periodical. The Commission has appointed Dr. K. W. Bash as its editor.

The new *Rorschachiana* are intended to provide an international forum for research in personality, assisting in the exchange of facts and theories between serious investigators of all lands and schools. To this end they will publish original articles in English, French, German and Latin as well as book reviews, discussions and notes. An international committee assists the editor (American member Dr. Marguerite Hertz). Its members are prepared to receive contributions from their respective geographic and linguistic areas for consideration and, if suitable, for transmission to the editor as well as to give information in all questions relaing to the journal.

The editor and publisher are particularly happy that a number of the pioneers and veterans of Swiss Rorschach investigation, who in part have worked with Hermann Rorschach, have consented to serve on the editorial committee. Thanks to this fact and to their own origin, the *Rorschachiana* stand in close relation to the classical Swiss Rorschach tradition and wish to uphold it in the future. On the other hand, they do not by any means wish to exclude other views, new developments and innovations. The editor invites all schools and groups to participate.

The foremost place will be accorded to the Rorschach test as being the eldest, best studied and best validated of all projective methods. The journal also wishes to assist, however, in subjecting the continually emerging new methods to thorough examination and criticism as well as in furthering such of them as prove, or already have proven, their worth. Not only shall the tools of personality diagnosis be refined and new ones invented, but their possibilities as instruments of research shall be unfolded. This holds particularly for the Rorschach, the editor being convinced that it is able to serve much more as a tool for basic research than it has hitherto done.

Contributions as well as books and articles for review should be addressed to Dr. Marguerite Hertz, Department of Psychology, Western Reserve University, Cleveland 6, Ohio, or to the editor, Dr. K. W. Bash, Südstrasse 120, Zürich 8, Switzerland. Subscriptions and business communications should be directed to Verlag Hans Huber, Marktgasse 9, Berne, Switzerland.

THE PROJECTIVE RESEARCH REGISTRY

Dr. Leopold Bellak has suggested to the Society that for the facilita-

tion of much needed planning and cooperation in projective research the Society establish the Projective Research Registry to be composed of experts of the various techniques with the following functions:

1. To outline in print what would be considered the most immediate and most basic research needs for each of the major methods.
2. These research proposals should be listed in the *Journal of Projective Techniques* and be recommended as bases for selection of dissertations.
3. The Board, or its individual members, should be available for consultation to dissertation advisors and to students.
4. It may be advisable and possible to make available some foundation money which, at the discretion of the Board, could be used to integrate certain basic data now found sporadically and incompletely in the content of various research projects.

Thus, with the help of a co-ordinating body, data may be collected which no single individual study could provide, or which no series of unrelated, single studies could afford. Yet there would be no danger that individual initiative would be interfered with, since no one would be compelled to choose from the Registry List.

ANNOUNCEMENTS

WORKSHOPS

Chicago

The University of Chicago announces two workshops in the Rorschach Test.

Basic processes will be demonstrated the first week. The instruction will cover technic in administering, all scoring, processing of test records, psychologic significance of the separate variables, introduction to interpretation.

Acute stresses, in adults and in the adolescent range, form the topic in the advanced seminar, the second week. Test records will demonstrate conflict conditions, in which severe emotional pressures meet strenuous ego defense resistance (all with acute psychological pain), and the treatment assets in these patients.

Doctor S. J. Beck will conduct both seminars. The dates are July 7-11 and July 14-18, 1952. For full information, write to the Department of Psychology, University of Chicago.

Cleveland

Marguerite Hertz, Ph.D., Associate Professor of Psychology, Western Reserve University, will give three workshops in the Rorschach Method.

Workshop I: Introduction to the Rorschach Method, June 2-6 inclusive. All day sessions, one evening session. Lectures, demonstrations in the hospitals, supervised training periods.

Workshop II: Intermediate course in the interpretation and clinical application of the Rorschach Method. June 9-13 inclusive. All day sessions, one evening session. Lectures, demonstrations in the hospitals, supervised training periods.

Workshop III: Advanced course in the interpretation of Rorschach records of various personality and clinical groups. Participants may submit records for study. June 16-20 inclusive. All day sessions, one evening session.

Fee: $40.00 for *each* workshop.

Credit: One credit per Workshop if desired upon registration and presentation of transcript of college record.

Application: Inquiries may be made prior to May 15th to:

Dr. Marguerite R. Hertz,
Department of Psychology,
Western Reserve University,
Cleveland 6, Ohio.

Los Angeles and San Francisco Areas:

The Claremont Summer Session announces 1952 workshops in the Rorschach Method of Personality Diagnosis and other Projective Techniques, conducted by Dr. Bruno Klopfer and Dr. Evelyn Troup.

Introductory Seminars for beginners will be offered at Workshop A only. Successful completion of Workshop A qualifies beginners for Workshop B.

Intermediate and *Advanced* seminars will be given at both workshops.

Workshop A—August 4 to August 16, Claremont College, Claremont, California.

Workshop B—August 19 to Aug. 29, Asilomar Conference Grounds, Pacific Grove, California.

Credit: Graduate credit (for psychologists only) of 3 semester units may be earned by qualified students for the successful completion of each workshop.

Tuition: $50.00 per workshop.

Applications: Inquiries may be made prior to June 15, 1952, to:

Dr. Bruno Klopfer,
480 Redwood Drive,
Pasadena 2, California.

New York:

The Workshop in Projective Methods inaugurated last summer at the New School for Social Research, under the direction of Camilla Kemple and Florence R. Miale, will be repeated this summer. There will be four weeks of courses in the Rorschach method (introductory and three advanced levels); introductory and advanced Figure Drawing Analysis, taught by Karen Machover; a course in the Miale-Holsopple Sentence Completion Technique, taught by James Q. Holsopple and Mrs. Miale.

The dates are from June 16 through July 12 inclusive. The courses will receive graduate credit from the New School, and may be taken under the GI Bill.

Inquiries may be addressed to Richard Benjamin, 34 West 75th Street, New York 23, N. Y.

MEMBERSHIP

At the meeting of the Executive Committee, on December 14, 1951, the following applications for fellowship and membership were approved:

Fellows:
Lily Gondor
Max L Hutt

Members:
Elias N. Abrams, Ph.D.
Marjorie Carson
Robert Cartwright
Franklin D. Fry, Ph.D.
Martha O. Fry
Dorothy Houck
Hedwig Jahoda, Ph.D.
Leah Levinger
Haripadi Maiti
Edwin S. Raub
Irving Schulman
Edward J. Shoben, Ph.D.
Bernard Sless
Phyllis Glaser Stern
Sidney Yudin
Carol G. Hirst
Maurice Rapkin, Ph.D.

REGIONAL REPORTS

Northern California Division

At a meeting of the Northern California Division of the Society for Projective Techniques, on December 3, 1951, Dr. Francis X. Barron presented a paper titled "Complexity and simplicity as personality variables" and Dr. Harrison Gough presented a paper entitled "Identifying Originality."

At the same meeting the following officers were elected:

President:
Katherine Bradway
Secretary-Treasurer:
Jerome Fisher
For Council:
Anneliese Korner
W. H. Pemberton
Remaining on the Council:
Olga Bridgman
Susanne Reichard
Audrey Schumacher

New York Division

The New York Division has planned an all day annual meeting to be held on Saturday, March 15, 1952, at the New York State Psychiatric Institute and Hospital. The program is as follows:

9:30-10:00 Registration.
10:00-12:00 Panel Discussion—
"The M Factor in the Rorschach."
Chairman—Samuel B. Kutash, Ph. D., V.A. Mental Hygiene Clinic, Newark, N. J.
Participants: Samuel J. Beck, Ph. D., University of Chicago, Chicago, Illinois.
Gotthard C. Booth, M.D., New York City.

Fred Brown, Ph. D., Mount Sinai Hospital, New York City.
Zygmunt A. Piotrowski, Ph.D., New York State Psychiatric Institute and Hospital, New York City.

12:00-2:00 Lunch.

2:00-2:30 Lecture—
Emil Oberholzer, M.D. "Contents and Essentials of Rorschach's Experiment in Psychotherapy."

2:30-3:00 Business Meeting—Only members of the National Society may vote, but guests are welcome.

3:00-5:00 Invited Papers—Topic: "Projective Techniques With Children, Aged 6 to 10."
Chairman: Edward Joseph Shoben, Jr., Ph.D., Teachers College, Columbia University, New York City.
Participants: Leopold Bellak, M. D., New York City, "The Children's Apperception Test."
Florence Halpern, Ph.D., Bellevue Hospital, New York City, "The Rorschach."
Karen Machover, M.A., Kings County Hospital, Brooklyn, N. Y. "Human Figure Drawings."
Committee:
Theodora M. Abel, Ph.D.
Samuel Baron, Ph.D.
Renata Calabresi, Ph.D.
Helen P. Davidson, Ph.D.
Gertrude Gillenson, Ph.D.
Zygmunt Piotrowski, Ph.D.
Emanuel K. Schwartz, Ph.D.

Registration fee for both members and guests is $1.00. Further information may be obtained from Gertrude Gillenson, Secretary, at 410 Central Park, West, New York 25, N. Y., Apt. 140.

Montreal Group

A Montreal Group was originally formed in March, 1942, and was composed of 12 members, including: Drs. H. Lehman, D. Ross, M. Prados, K. Stern, and Mrs. H. Malloy. Some ten meetings were held before the group disbanded in February, 1944. Due largely to the initiative of Mrs. B. Wigdor and Dr. H. Lehmann, the group was reformed in October, 1950, following their correspondence with Dr. Theodora Abel (of the Committee on Regional Groups).

Meetings have been held regularly once per month (on the 3rd Tuesday, four summer months excepted) since this time and membership has continued to increase. Total membership including full members (members of Society for Projective Techniques and Rorschach Institute, Inc.), members, affiliate members and students, is now 37, In addition, nine new applications for membership are on hand. The nine full members represent, according to the December, 1951 listing, 60 percent of the Canadian membership in the Society for Projective Techniques and the Rorschach Institute. The present executive committee is as follows: Dr. H. Dorken, Jr., chairman; Miss G. Robert, secretary-treasurer; Mrs. G. Clerk, and Dr. H. Lehmann, membership and program committee.

The group reformed principally with the aim of organizing a collective pooling of skills in this area. Meetings alternate between the presentation and discussion of a single research project involving projective techniques, and the demonstration and description of several of the lesser known projective tests. In the future, it is hoped to open a training course for students.

MONOGRAPH No. 1

Title: PROJECTIVE TECHNIQUES AND PSYCHOTHERAPY: Examination of a therapy process through the use of the Projective Motor Sequence and Rorschach Technique.

Author: WILLIAM H. LUNDIN

This monograph is a study in which the Rorschach was administered six times and the Projective Motor Sequence three times during the course of intensive psychotherapy (100 hours). The presentation includes a detailed description of the patient's behavior, the treatment situation, and interpretations and comparisons of the test results as they reflect the therapy process.

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